RESEARCH REPORT

A REPORT ON A FEASIBILITY STUDY
FOR A PILOT INFORMATION SYSTEM
FOR CANADIAN SHELTERS FOR
HOMELESS INDIVIDUALS AND FAMILIES

DISTINCT
HOUSING NEEDS
SERIES

CMHC SCHL

HOME TO CANADIANS
Canadä

CMHC—Home to Canadians

Canada Mortgage and Housing Corporation (CMHC) is home to Canadians. In everything we do, we help Canadians live in safe, secure homes. As the Government of Canada's national housing agency, we play a major role in Canada's housing industry. CMHC develops new ways to finance home purchases. We encourage innovation in housing design and technology. Our mortgage loan insurance helps Canadians realize their dream of owning a home.

Canadians benefit from our work with public, private and not-for-profit partners to improve the quality, accessibility and affordability of housing everywhere in Canada.

CMHC assistance helps low-income and older Canadians, people with disabilities and Aboriginals live in decent, affordable homes. We create jobs for Canadians with products and services that help the housing industry export its knowledge and skills to other countries.

CMHC's leading-edge research improves the quality and affordability of housing. To help Canadians benefit from our housing expertise and make informed decisions, CMHC has become Canada's largest publisher of housing information. We also have Canada's most comprehensive selection of information about homes and housing.

Canadians can easily access our information through retail outlets and CMHC's regional offices.
You can also reach us by phone at
    1 800 668-2642 (outside Canada, (613) 748-2003)
by fax at (613) 748-4069
To reach us online, visit our home page at www.cmhc-schl.gc.ca

A Report on A Feasibility Study for a Pilot Information System for Canadian Shelters for Homeless Individuals and Families

1999

by:
SPR Associates Inc.

for:
Canada Mortgage and Housing Corporation

Acknowledgements

Staffing

The project was directed by Dr. Ted Adam Harvey, with key research
roles played by Marian Ficycz (data processing), Micheline Ross,
Chris Powell and Isabelle Jeanson (feasibility study) and Don Storm
(field operations and word processing). Sylvie Baillargeon provided
assistance with Québec portions of the research. David Groskind
and Steven Oberski provided consultation on computer issues, and
Dr. Tracy Peressini and Professor Dennis Culhane provided additional
consultation on issues of homelessness.

Background

Following a conference on homelessness in June 1995 Canada Mortgage and Housing Corporation (CMHC) initiated a series of projects to test need and demand for a pilot information system for shelters for homeless individuals and families. The intent of the research was to develop such an information system, if needed and feasible. This report represents the second step in this work—a feasibility study on a pilot information system for shelters and an outline of possible information system specifications.

A feasibility study

The key element was a feasibility study which obtained assessments of need for an information system, and views as to how it could work, from organizations operating 62 shelters in cities in all regions of Canada.

Results

The study results indicate that considerable interest exists in a shelter information system (90 per cent of shelters indicated that they felt shelters would benefit from an information system, and 63 per cent indicated that they would consider participation). The feasibility study results suggest that shelter interest in a national information system is substantial, widely based across Canada, and it is feasible to develop a pilot information system for shelters for homeless persons and individuals in Canada. The researchers recommend that such a system be developed, with strong shelter input at each stage as has been the case so far. Such a system would be used by participating shelters, with important uses for planning, advocacy and case management.

Recommendations

Specific recommendations include:
- CMHC begin a consultative process by circulating its report to participating shelters and sources of funding in the near future to obtain feedback and comments.

- An advisory committee should be formed with members from shelters and provincial, territorial and municipal funding bodies. The purpose of this group would be to review the emerging pilot, and the plans for content, administration, utilization, governance, marketing, etc. Such a group could be developed as an advisory group to CMHC and the consultant team undertaking the next stage of the study, reducing the formality of the process.

- The pilot study should be developed in an integrated design. CMHC should consider developing computer programs and fielding a pilot at the same time. The rationale for linking the computer programming development to the field tests would be to ensure seamless delivery and accountability for the entire process.

Additionally, the consultants noted:

- CMHC will need to determine resource allocations, the type of support it will provide (if for hardware, training, etc., in addition to software) as part of the pilot process, and its expectations/strategy for partnering with agencies involved in the funding of shelters participating in the pilot project.

- The project should be developed initially in a model demonstration system. A single test in a community or shelter could show the advantages and help work out the complications in the system. This would provide for an example of success, and a chance to remedy failures on a smaller scale basis, then extend the pilot to other communities.

Shelters' views of benefits and issues of a pilot information system

In a national feasibility study, shelter staff and volunteers expressed both enthusiasm and concerns about an information system for shelters serving homeless individuals and families.

Potential uses and benefits

"It [an information system] would help us to understand current issues and trends occurring around the issue of homelessness. It would be nice to trace the path of service users and what services are being utilized."—A shelter in Ontario

"Statistical information is vital for us to continue to receive and/or apply for grants, subsidies and funding. It would be helpful if the information was stored and compiled for us, and if we could compare with other areas."—A shelter in Ontario

"We need to be able to readily understand how many individuals use our services, with what frequency and how this is part of the overall community. The system must be able to relate to information collected for other services (e.g., food bank). The case management function would be important."—A shelter in Ontario

"Our information system is a dated program, we need help to customize economically, but this is currently out of the question. We also need to know the needs/pressures of our clientele to better serve and to educate the public."—A shelter in British Columbia

This is an excellent idea. You should be more clear about your intent. There would be great benefit from having access to [this type of] information. We would like to see the results of this survey."— A shelter in Ontario

Issues and concerns

"A potential problem with this system may come from false statistical results because not all shelters will participate in a national database. This may result in unrepresentative data on homelessness issues in Canada."—A shelter in Québec

"Confidentiality is a big problem. We would [have to] get the written consent from every resident to collect and process information and explain to them how the information will be used."—A shelter in Saskatchewan

"There [is a risk of] misuse of data, i.e., the interpretation put on that data, if it isn't screened and the summary report is not properly interpreted by participating agencies."—A shelter in Ontario

"To collect identifying information from our clients may very well discourage them from getting help from shelters."—A shelter in Québec

"For us, the lack of an appropriate computer system would hold us back; we hope to remedy this in the future. Will the pilot information system help in this regard?"—A shelter in Ontario

"Mandatory participation may deter clients from [using] the shelter. The client must be assured of total anonymity and should have the choice to participate. Admission cannot be denied if the client chooses not to. We should be consulting the homeless about this information system."—A shelter in Alberta
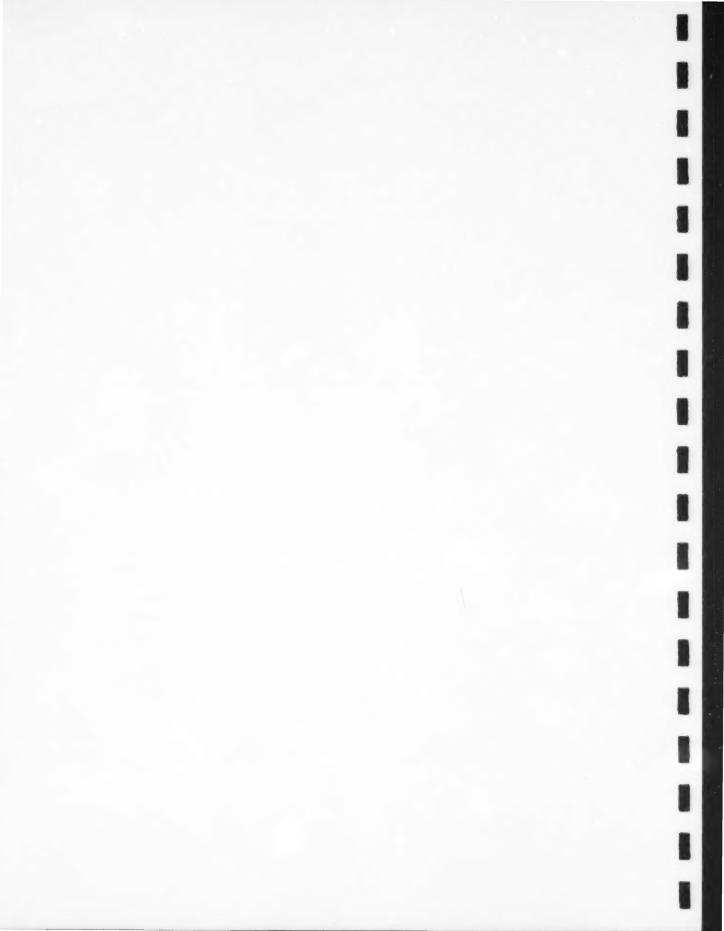
Table of Contents

LIST OF TABLES

Background to the study

The development and testing of a pilot homelessness data collection and management system is an integral part of a broader program of research on homelessness being conducted by Canada Mortgage and Housing Corporation (CMHC). The project evolved out of a June 1995 workshop on how to identify the numbers and characteristics of homeless individuals and families.

A key observation from both the workshop and the resulting report,[1] was that services for homeless individuals and families (shelters, soup kitchens, day programs, etc.) provide the best base for enumerating and describing the homeless population, a key step in better understanding and reducing homelessness. The workshop, and a successful example of a homeless shelter data collection and management system in the United States (ANCHoR[2]), led CMHC to consider developing and pilot testing a Canadian system to collect information on homeless individuals and families using shelters in urban areas. This proposed system is referred to variously within as the Homeless Individuals and Families Information System (HIFIS) or simply the information system.

Driving the project are the potential benefits that would accrue to shelters and to all those actively involved in housing and public policy. At present, although many shelter agencies collect substantial data on their homeless clientele to obtain their funding, they tend to use underdeveloped data collection and management information systems that vary from agency to agency. As a result, agencies "under use" the information they have, and the information cannot be used to develop broad, comprehensive profiles of the homeless population. Cooperation among shelters and the development of shared knowledge are also affected by this lack of shared information.

Potential benefits of an information system

ANCHoR and other data collection systems show that there are important benefits for shelters, homeless persons and others, to be derived from the collection of information on shelter users. An information system can help close the gap in knowledge on homeless persons. The collection of accurate data can allow for a better understanding of the numbers and characteristics of this population, which in turn may aid shelters to develop and present stronger cases/arguments to increase or maintain funding. An information system can also benefit shelters by better profiling the clients they are serving and identifying client needs. As well, a system linking data from a number of shelters can provide information on the broader needs of clients who may use a number of shelters over a given period. This information can thus aid shelters in planning programs, inter-agency liaison and advocacy activities.

By combining the information[3] collected by community shelters, useful overview information on the population using shelters in a given urban or larger area can be obtained. This information can give program providers the necessary insights to develop services that meet the needs of their community's homeless population. The information provided by such combined data can also be used to raise awareness of homelessness among the general population. Existing illustrations suggest that such information systems do produce significant benefits.

Preliminary feedback, for example, on the experience of shelters currently using ANCHoR in the United States has been very positive about the benefits of an information system. American shelters using ANCHoR report that their information systems provide much needed information on the shelter population. This information has provided hard evidence to

support requests for increased programming and funding. The ANCHoR information systems have also benefited the participating communities by allowing program planners to better allocate services by adjusting the mix of services to the family/person as needs arise. Further, some shelters have found that using the information system provides a much more cost-effective and simple method of gathering administrative information to be used for internal purposes, including case management, where shelters provide or link into supplementary services.

Cities with existing shelter information systems, such as Metro Toronto, report that the value of an information system, and the comfort of shelters with a system, grows over the years.[4] This suggests that a pilot test of an information system for shelters will be only the first step in a much longer-term process. This process and the possible next steps for a test of a Canadian system are outlined below and throughout this report.

The proposed Canadian Information system

As envisioned, the long-term goal of a Canadian information system is to collect standard information from each person entering a shelter for homeless persons and families (defined as permanent shelters designated for homeless people, runaways, or neglected or abused women) in each of Canada's major urban areas. The more immediate goal of CMHC, assuming sufficient interest from all parties involved, is to implement a pilot test of such an information system, ideally in a minimum of one urban area in each of British Columbia, the Prairies, Ontario, Québec and the Atlantic provinces.

How would it work?

Such an information system would enable shelters within a given urban area to collect set information about their clients and forward that information to a central location for aggregation with the data from other shelters in the city/region.[5] The system would then provide outputs in the form of periodic statistical

and analytic reports on shelter utilization, on information for case management, on analyses to assist with program planning and on other issues.

For shelters not currently using an information system, the result would be a significant increase in information, and the ease and ways in which it can be used. Potentially better information could improve the quality of services available to the homeless. For shelters now using different types of self-developed information systems, a gain would be found in the ability of a larger number of shelters (ultimately at municipal, regional, provincial and even the national level) to compare statistical and trend information. Such a system could serve internal data needs of shelters and also provide broader summary statistical information for planning and policy purposes.

Issues and constraints

In initiating this study, CMHC recognized that some shelters may be hard pressed to participate in an information system activity, even when the information would be useful to them, because of shortages of staff/resources or sensitivities about information gathering. As well, designing an information system poses many difficult issues in such areas as privacy rights of clients, technical computer system issues and other technical questions of a more administrative nature (such as designing unique identifiers which protect client anonymity). Phase Two, Part One of this project therefore assessed the trade-offs, to see what kind of system could be useful to shelters and practical for them to implement. The central part of this study was designed to see what shelters need and what shelters would want in an information system.

A study in phases

The project has been subdivided into three phases. Phase One, which has been completed, identified the types of key client data to be collected and studied issues of confidentiality to be considered in creating the data system.[6]

The current phase of the project, Phase Two, is divided into three parts. Part One will determine the scope of the system, and create system specifications. Part Two involves the actual systems development, and Part Three, the completion of preparations for pilot testing the system.

The final phase, Phase Three, will test the system created by phases One and Two.

This is the final report on Phase Two, Part One of the development and testing of the pilot homelessness data collection and management system.

This report

Chapter 2 provides an overview of the methodology of the feasibility study conducted for the project followed by a chapter that provides the results of the feasibility study—what Canadian shelters had to say about an informationsystem and its use. Chapter 4 gives conclusions, recommendations and initial specifications for a pilot information system. Chapter 5 summarizes the views of a sample of shelters, government officials and experts asked to review the final report and, specifically, to provide additional details on the types of reports they would need from the information system.

Broader Issues

This feasibility study does not address the important broader issues of homelessness, its causes and prevention, and basic housing income security and social policy actions of government. However, the discussion of the information system is linked to the information needs of efforts to eliminate homelessness.

In order to present the information system concept to Canadian shelters and others, the following key steps were taken.

* Background information was reviewed, knowledge from the Phase One report was consolidated and other information systems were examined (e.g., ANCHoR and existing systems such as that of Metro Toronto).
* Provincial/territorial and municipal housing and social services departments were consulted.
* A cross-country list of shelters was compiled to serve as the sample for conducting a feasibility study.
* A background paper was written to describe the various options involved in creating an information system and to serve as the basis for a feasibility study with selected shelters (Summary of System Options, see Appendix A).
* The feasibility study was conducted with selected shelters in each region of Canada and the results were analyzed.
* Strategic directions and implications for a pilot system's specifications (including computer options) were identified.

Background research

Existing information systems, such as ANCHoR from the United States and the Metro Toronto information system, were examined along with the more general literature on homelessness. The ANCHoR system was found to be a useful departure point for the feasibility study. Supported by legislation providing incentives for information and a strong top-down federal-to-local funding mechanism, ANCHoR has become an important system in the United States, operating in hundreds of cities, with important data outputs and uses, including detailed case management. This system, still being evaluated, includes interviews done through a central intake facility in each participating city. However, ANCHoR,

as originally conceived, was seen as possibly not appropriate for Canadian shelters because of the lack of uniform centralized funding mechanisms in Canada.

Indeed, on examination, not all provinces were found to provide central funding for homeless shelters, and thus to have the potential to mobilize uniform participation in an information system.[7] More important, municipalities, the core operators of ANCHoR, were found in Canada to have highly variable roles in funding shelters. Only the Metro Toronto information system (a relatively simple system tied to Metro Toronto's funding of shelters) was found to encompass virtually all shelters in a given jurisdiction.[8]

Literature review

A literature search on homelessness and on information systems was conducted at the University of Toronto Library. Also, suggestions for material were taken from the Phase One report and from an interview with its author, Tim Aubry.[9] The literature review pointed out challenges which must be overcome in implementing an information system. These included issues of confidentiality, accuracy of information to be collected and organizational (staff and management) resistance to information systems (or change in general).

The literature also outlined the benefits "of implementing an information system, particularly in increasing the amount of reliable data available to support the need to maintain or increase funding to shelters.[10] The literature suggested that information systems allow shelters to better profile their clients, which in turn allows them to better identify client needs. The literature on homelessness presented an overview of what is known about the homeless population in North America, and also the difficulties encountered in gathering information from them.

Consultation with provinces/ territories/municipalities

In total, 13 interviews with provincial and municipal key informants, and the Salvation Army were conducted in order to:

- obtain an overview of shelter funding;
- determine what information would be most useful for policy and programming purposes;
- obtain advice on how to go about assessing the need for an information system in shelters;
- obtain information on research/information systems already in place; and
- determine interest in an information system.

Generally these interviews were highly informative in indicating:

- the diverse funding patterns for homeless shelters across the country (provinces were found to vary greatly in their involvement in funding) (see Table 1); and
- potential interest in an information system (most provincial/territorial key informants interviewed indicated a positive interest in an information system and the possible usefulness of data).

These interviewees were extremely helpful in identifying issues, and also helping the study team access lists of shelters for municipalities.

Identifying shelters

City officials of 26 census metropolitan areas (CMAs) from across Canada were contacted by fax, informed of the feasibility study and asked to provide a list of shelters for their city. The Salvation Army was also contacted in each Canadian region which it serves. Where responses to the fax were not complete (i.e., the city only had a listing for shelters which it funds, and not those funded by others), identified shelters in a given city were contacted directly in order to complete the list.

Eighteen urban areas" were then selected for the survey in all regions of Canada. The urban areas were chosen for the survey based on the representation of Canadian regions, size and the number of shelters in each area. Shelters in these urban areas were contacted by telephone, and supplied with background information on the study, the purpose of an information system, the history of CMHC's recent work in this area, and other background information. Subsequently, shelters were invited to participate in a feasibility study to indicate their interest in, and vision of, a homeless shelter information system. Additionally, a computerized database of shelters in the selected cities across Canada was developed.

Summary of system options

A summary was prepared which identified key issues and options for an information system. It outlined such topics as:

- how it could be input (including computer input alternatives);
- how information could be accessed (reports to participating shelters and other users);
- how the system could protect confidentiality; and
- how the system could be governed.

A key element in the summary of system options (SSO) described the specific elements of information which could be collected by such a system (e.g., items such as client age, reason for homelessness, use of services). The SSO also discussed how shelters and others could use this information, with this information presented in a low-key manner, as "possibilities" for shelters to consider. The SSO outlined a variety of options for shelters in each area of designing an information system.

Conducting the feasibility study

Seventy-four shelters for homeless individuals and families in the selected cities were sampled, and asked to provide an assessment of the feasibility of, and to comment on issues

Table 1:
Provincial profiles, roles from various sources

PROVINCE	PROVINCIAL AND OTHER FUNDING
Newfoundland	Province: Contracts directly with shelters. Per diem rate is paid based on the number of beds anticipated being used for a given period. Province also looks at budget for each shelter, staff and expenses and sets an occupancy rate. Approves a yearly budget for the shelter and provides 1/12 of the funding each month.
Nova Scotia	Province: Cost shares with municipalities. Funds shelters on a fee-for-service billing basis. There are six shelters in Nova Scotia: four in Halifax, one in Sydney and one in Truro. The province also funds transition houses for abused women. Salvation Army is not funded by province, but province does fund some people who stay at the YMCA.
New Brunswick	No provincial role or funding of shelters.
Prince Edward Island	Province: Contracts directly with shelters. According to informant, there is only one such shelter in PEI, managed by Bedford MacDonald Trust and subsidized by CMHC.
Québec	No direct provincial role or funding of shelters.
Ontario	Province: Provides funding through municipalities which maintain a substantial system of shelters.
Manitoba	Province: Contracts directly with shelters. Shelters must send per diem invoice of eligible clients staying at shelter who meet certain provincial standards.
Saskatchewan	Province: Funds transition houses for victims of violence but not single men's shelters. It was estimated that there were 10 shelters for abused women and two men's hostels. It is possible that men's hostels are funded indirectly by the province through grants for trusteeships for welfare. Municipalities may give grants to shelters but do not run them.
Alberta	Province: Contracts directly with shelters. The cities of Calgary and Edmonton also provide funding for shelter operation.
British Columbia	Province: Contracts directly with shelters. Several provincial ministries provide funding to shelters: Ministry of Human Resources, Women's Equality, Ministry of Municipal Affairs and Housing, Ministry of Children and Families, and the Ministry of Health.

The ministries share the cost of funding for various shelters, such as housing for those with mental illnesses, traditional hostels, non-profit housing groups and housing for victims of violent relationships. Municipalities may in some cases provide grants. |
| Northwest Territories | Not ascertained. |
| Yukon | Development of funding of shelters being initiated. |

regarding, a pilot information system for homeless shelters. Sampled shelters were each sent the SSO, and a detailed seven-page questionnaire on which to indicate their assessments. Shelters responded by fax, and in some cases through telephone interviews with the researchers. Non-respondents received telephone and fax reminders to complete the feasibility study. A toll-free number was also made available to shelters to have their questions answered. Fifty-eight feasibility study questionnaires were returned[12] (with responses representing 84 per cent

of the shelters in the final samples. (See Table 2 for a breakdown of the sample by province and city.)

The feasibility study was generally implemented without great difficulty, and elicited good responses from shelters, with the exception of shelters in two of three Québec cities. There, most shelters in the two largest target cities (Montréal and Québec) had recently participated in a major, related information-gathering exercise, which involved a substantial one-time collection

Table 2:
Number of shelters contacted, sampled and responding by province and city

Province	City	# of Shelters Contacted**	# of Shelters In Sample*	# of Questionnaires Returned
British Columbia	Victoria	8	3	3
	Vancouver	5	5	5
Alberta	Edmonton*	9	8	8
	Calgary	7	7	7
Saskatchewan	Saskatoon*	5	5	3
	Regina	1	1	1
Manitoba	Winnipeg*	3	3	2
Ontario	Thunder Bay	5	5	2
	Windsor	2	2	2
	Hamilton*	8	8	7
	Newmarket	1	1	1
	Kingston	4	4	4
	Ottawa	4	4	4
Québec	Montréal	6	6	2
	Ville de Québec	5	5	2
	Trois-Rivières	2	2	1***
New Brunswick	Fredericton	1	1	1
Nova Scotia	Halifax	4	4	3
Total Surveyed		**80**	**74**	**58**
Total Shelters Responding			**62**	

Notes:
* Some shelters in the sample were operated by the same organization as another shelter in the sample. Thus, in four cases, one response was anticipated and/or received on behalf of two shelters. This effectively means that there was a non-response from 12 shelters, and not 16 as the data in the chart suggest. The cities whose samples were affected in this way are marked by a ***.
** Some organizations originally contacted did not qualify as shelters, and were subsequently not sampled. In the same vein, five of the sampled shelters were later determined not to be "homeless" shelters.
*** A second Trois-Rivières shelter provided information over the telephone.

of a retrospective year of client data. Because of being over-studied, we found that these shelters were not interested in "another study."

Statistical summary

In Section 3, results of the feasibility study are presented for each major aspect of an information system that was examined. The percentage of shelters indicating various views is shown for each question. Overall, the results indicate that the creation of an information system would be of interest to many shelters, but that such an information system faces a number of obstacles in terms of its development and implementation.

Note that each section has reference numbers in brackets, usually of the form, for example, "Q.25." These refer to the question numbers in the feasibility study questionnaire. (See Appendix B for the detailed responses to each question.)

Follow-up

Six shelters and six provincial/municipal representatives as well as a number of experts were asked to review the final report and, specifically, to provide more information on the types of reports that they would prefer to come out of the information system. Feedback was obtained from six shelters, five provincial/municipal representatives and two experts. The feedback from the consultations can be found in Section 5 of this report.

Obstacles

The feasibility study process was complicated by the fact that few resources existed at the start

of the study. For example, no national overview list or publication was available to identify which provincial agencies or which municipal departments are involved in funding or managing shelters. No national database or list existed identifying individual shelters[1]. Considerable groundwork was required in contacting provincial/territorial bodies and other organizations which were exceptionally helpful, such as the Salvation Army.

General information and computer resources

Collecting information and transferring it to a central database (Q.1): Shelters were given a variety of options as to how data could be collected from clients and subsequently transferred to the central Homeless Individuals and Families Information System (HIFIS) database. There were two components to this question: the methods deemed "acceptable" and the single method rated "most preferred" by each shelter. Shelters could specify more than one option as acceptable, but were asked to choose only one option as most preferred.

Responses to the feasibility study indicate that it will be important to build a certain degree of flexibility into HIFIS. The need for flexibility is suggested by the fact that no single method was rated acceptable by more than half of the shelters.

Shelters gave high ratings to:

- (Q.1(a), e) "Staff interview the client, enter answers directly into a computer and information is later sent to the central system by a direct modem connection or Internet" was indicated as an acceptable method by 45 per cent of respondents and the most preferred method by 36 per cent.

- (Q.1(a), a) "Clients fill in questionnaires which are sent to a central location for information entry" was indicated as an acceptable method of data collection by 41 per cent of shelters and the most preferred method by 24 per cent of respondents.

- (Q.1(a), c) "Staff interview client, fill in questionnaire (on paper) and send it to a central location for information entry" was indicated as an acceptable method of data collection by 48 per cent of shelters and the most preferred method by 16 per cent of respondents.

Under "other" options, one shelter pointed out the possibility, not listed in the questionnaire, of interview to a paper form, with subsequent data entry from paper to computer by the shelter, for later electronic transfer to the HIFIS database.[14] Direct Internet entry to the central database during the interview (Q.1 (a), d), was seen as the least acceptable option. It was rated acceptable by 20 per cent of shelters, and most preferred by only four per cent.

> Overall, no single path to data collection was indicated as likely to be immediately acceptable to all shelters. These findings suggest that data collection for the information system will have to be flexible, allowing shelters to administer the questionnaire (staff interview versus clients filling in questionnaires themselves, paper versus electronic) in the method most suitable to their needs and resources. A common point, however, is that all shelters seemed to favour some type of data collection at the time of entering the shelter.

Acceptable times to collect data (Q.2): When asked when it would be acceptable to collect information from shelter clients, 73 per cent of shelters responded that acceptable times were when clients are entering the shelter and also during their stay at the shelter. A minority of shelters (18 per cent) believed that collecting information when clients are leaving the shelter is acceptable.

Overall, shelters stated that their most preferred time to collect information from their clients was during intake (62 per cent). Thirty-three per cent of shelters preferred collecting the information during the client's stay, and four per cent as the clients leave the shelter. Two shelters suggested alternate times for data collection: during mealtimes and throughout the residency at the shelter.

> An information system should be designed so information is collected from clients when they enter the shelter, because of the high proportion of shelters which indicated that this was an acceptable and/or the preferred time to collect data.

Present use of computer technology (Q.3):
Shelters were asked to indicate the highest level of computer their shelter currently used, and indicate which computer type they were predominantly using for intake purposes.

Results suggest different levels of computer capacity within shelters. Some 66 per cent of shelters indicated that their highest level of computer was a 486 or Pentium® computer, but most shelters (67 per cent) indicated that they use these computers for administrative purposes only, and not for intake purposes (Q.3, a and b).

> We can conclude that nearly all shelters are already using some kind of IBM-compatible computer, but that these are not being used for information-system purposes, but rather for general office use/ administration. An information system, therefore, should allow for the possibility of shelters collecting data with or without the use of a computer. Ultimately, a widespread pilot would ideally require new hardware for some shelters in the form of low-end Pentium machines.

Computer operating systems in use (Q.4):
The first part of the question asks what kind of operating system the shelter's highest level computer uses. The answer is straightforward: 90 per cent of shelters using computers indicated they were using the Windows operating system, as opposed to MacIntosh or DOS-only systems.

Shelters were asked (Q.4b) to identify the operating system of their intake computer. Here, 67 per cent indicated they didn't use computers for intake purposes at all. Most of the remainder indicated they used the Windows operating

system only. A small minority (six per cent) of shelters indicated that they used DOS systems.

> A computerized information system would need to be designed for a Windows operating system if using local PCs.

Internet capability (Q.5 and Q.6): Just under half of shelters possess the technology to access the Internet, and approximately one-quarter are on the Internet right now according to the feasibility study results. In question five, 43 per cent of shelters indicated they possessed a 14.4 Kps modem or better (needed for access to the Internet), while 42 per cent indicated that they did not.

The shelters' lack of Internet access makes the implementation of an information system via Internet somewhat less practical at this time. This option, however, should be revisited in the near future when shelters have had an opportunity to upgrade their technology, as it promises good economies of scale and economical maintenance.

> The shelters' lack of Internet access makes the implementation of an information system via Internet somewhat less practical at this time. This option, however, should be revisited in the near future when shelters have had an opportunity to upgrade their technology, as it promises good economies of scale and economical maintenance.

Existing participation in information systems (Q.7): While 42 per cent of shelters already participate in or use some kind of information system, over half (58 per cent) indicated that they did not. Of the shelters that did have information systems already, almost half were using systems they designed themselves, many of which used Microsoft Access or some other desktop PC database software. Several shelters explicitly stated that they collected information on paper, before entering it on a computer. Two shelters reported using a paper-only database system, while five shelters were not clear as to whether

the information they collected was later entered into a computer system, and another three did not describe their systems at all.

At least one shelter was already operating a system in partnership with another service provider (a psychiatric hospital), while two others reported sending paper records into the major local urban center for computer processing at some central office. Shelters with existing systems were not resistant to the idea of a new information system. In fact, most were enthused, but a number of shelters noted that a new system would have to offer substantial advantages to replace an existing system which the shelter had already invested in.

> The results suggest that various approaches outlined by the SSO already exist to a degree among some shelters. It also appears that most shelters which do use information systems run their own in-house databases on desktop PCs rather than using any type of shared or packaged database. An information system pilot may be of particular value in meeting the needs of shelters which do not already have such systems, but shelters with systems would participate if the pilot system offered advantages over their old systems.

Storage of Information at shelters

Issues and obstacles regarding confidentiality and security (Q.8, Q.9): In the feasibility study, shelters were asked if they had any specific suggestions to ensure that the confidentiality of clients is guaranteed while information is being stored at the shelter. This was an open-ended question.

Most shelters had at least one suggestion regarding how to protect confidentiality. The most common measures recommended included:

* coding the data to remove personal identifiers (10 shelters);

* minimizing the number of staff who would have access to the data (12 shelters); and
* using computer passwords and/or locked doors (24 shelters each).

Other suggested measures included:

* having a clear confidentiality policy in place (six shelters);
* informing clients of the nature of the information process; and/or
* giving clients the choice not to participate (two shelters).[13]

Question 9 asked whether the shelters saw any obstacles to the implementation of these measures. A total of 23 shelters provided open-ended answers to this question, two of which were simple "no problem" responses. Some answers expressed concerns regarding security. These shelters voiced the sentiment that security could never be 100 per cent effective, and one shelter expressed particular discomfort with the idea of transferring secure information through a potential Internet system. One shelter indicated that its chief security concern was the question of control over how information is to be used, and by whom, in the case of a centralized database.

Among other obstacles, the most common concern voiced was the need for staff training. Cost and the need for storage space were also noted as concerns.

Confidentiality of data for clients was a key concern of all shelters. Based on the responses to the feasibility study, the system should allow for adequate training of shelter staff on security issues, coding of the data to remove personal identifiers, and the use of computer passwords and locked doors.

> A minimum number of shelter staff should have access to the data for individuals. An information system can only be successful if there is a clear confidentiality policy in place to which all shelters using the system agree. The policy should cover issues such as informed consent, mandatory questions, informing clients of the nature of the information process and giving them the choice not to participate."

An overall Information processing function

Preferred basis for information processing (Q.10): In response to this question, 75 per cent of shelters indicated that they preferred an in-house computer system over an all-paper system (12 per cent) or an Internet system (nine per cent) for their overall information processing, "assuming equal protection of access, privacy, etc." One respondent noted in the open-ended "Other" response category that her/his shelter specifically would not want an Internet-based system.

> Support for a computer-based system was indicated by a majority of shelters.

It must be emphasized that responses to this question indicate strong hesitation on the part of many shelters to share their information with centralized agencies or to participate in wider information system networks. This concern, as noted below, depends somewhat on the type of central agency and the type of information in question.

> Appropriate data-sharing agreements must be signed, and confidentiality protection built into every aspect of the system.

System administration and information processing

Location for storage and administration of client information (Q.11): This question asked shelters what they would consider an "acceptable" location for centralized database storage and administration and what they would consider the most preferable location.

No clear preference emerged in response to this question. Only one option—storage and administration by a community agency—was rated as acceptable by more than half (54 per cent) of shelters. Storage with a municipal government was deemed acceptable by 41 per cent of shelters. Universities (32 per cent) and private consultants (18 per cent) were rated as less likely choices.

A large number of shelters listed other options as preferable. Of these 10 cases, four mentioned the provincial government or a provincial government agency. Two others mentioned a provincial- or national-level non-governmental organization. One shelter clearly stated that no government should have access to the data, while another stated that "information [was] to be stored within the facility" only. Some 13 per cent indicated that none of the listed options was acceptable. In terms of most preferable options, the highest rating given to any one option was 35 per cent, given to the option of storage and administration by a community agency. Another 28 per cent indicated the municipal government option to be most preferable, and a full 24 per cent indicated that their preference resided with the "other" option they had specified in the first part of the question.

Shelter responses to this question definitely seem to indicate hesitation to trust certain types of bodies with their information. Most striking, is the modest acceptance of a municipal role. This may reflect the fact that the government role in homeless shelters varies greatly from one province or major urban area to another. The results indicate that different administrators may be preferred in different regions or provinces. Regardless, there appears to be a strong preference among shelters for the data to be administered locally, either through municipalities or community agencies.

Based on these results, the feasibility study appears to suggest the system should initially be controlled by a steering committee of the shelters themselves. Access otherwise would be through the release of approved written reports. The steering committee would need to choose an agency or agencies to store the data and to set rules for that agency.

Data storage and access

Method of accessing single-shelter information from regional databases (Q.12): Shelters were asked to identify both their acceptable and most preferred methods for accessing their own data from a regional (or other central) database.

The most frequently cited method considered as acceptable was for regional/central databases to provide statistical reports to each shelter via mail (70 per cent). This was also the most preferred option for the greatest number (30 per cent) of shelters. Another highly rated option was to make raw data available at all times via a secure Internet site (acceptable for 45 per cent of shelters; most preferable for 21 per cent). Other moderately rated choices for shelters were the shelter being given the raw data on diskette, and a regional database providing tabulations on request."

Responses indicating the use of mailed reports, rated highly along with the possible use of the Internet, reflect the range of "usership" capabilities of shelters—related to a great extent to their technical levels. This means that an information system might—at least in its transitional stages— need to encompass some shelters working in paper and pencil while others would be fully computerized. It could be desirable for a pilot system to test some shelters (which do not now have computers) at this level before the introduction of a computer-based system.

Method of accessing multi-shelter information from regional or other databases (Q.13): This question was similar in form to the previous one, but it concerned the method of distributing information collected from a number of shelters where it is assembled into a general database. Two options emerged as the most accepted and preferred. The first of these was for regional/central sub-databases to provide reports at regular intervals and on request. This method was acceptable to 69 per cent of shelters, and most preferred by 31 per cent. Additionally, shelters indicated an interest in obtaining statistical summaries (63 per cent) and special information requests (61 per cent).

The second type of option was for multi-shelter information to be available at all times through a secure Internet site. This option was acceptable to 44 per cent of shelters and most preferred by 25 per cent. One shelter also indicated that distribution by e-mail would be preferable in both cases (single and multi-shelter distribution), while another indicated that it would prefer direct modem connection to the Internet to receive information.

Regular reports would be a key feature of the new information system. However, the responses indicate that an ideal HIFIS would distribute information through more than one channel, in order to meet the needs of as many shelters as possible—again with the range being from paper reports to Internet access, with some shelters indicating a desire for custom tabulations. Major differences of opinion as to what constitutes acceptable and preferred distribution methods presents a potential challenge to shelter-oriented system design and implementation.

Frequency of updates (Q.14): This question asked shelters how often they would want to receive update reports on information they themselves had collected, and on multi-shelter databases. The most common responses for both categories were monthly (42 per cent for single- and 32 per cent for multiple-shelter information)

and quarterly (42 per cent and 47 per cent respectively). A few shelters stated "as needed" under the "Other" open-ended question.

> The results point to the need for individual shelter and multi-shelter data or reports to be sent to shelters on a monthly or quarterly basis

Access to information (Q.15, Q.16): Question 15 asked shelters "who" they thought should be given the right to use the reports and statistical summaries generated by multi-shelter information. Shelters could select more than one category. Question 16 asked who shelters thought should be given the right to access raw data from the multi-shelter database.

With regards to reports and statistical summaries, shelters participating in the information system (69 per cent of shelters), shelters in general (62 per cent) and government agencies (60 per cent) were seen as appropriate recipients of statistical summaries of multi-shelter information. Only 33 per cent of shelters indicated that the general public should have access to such information, while non-governmental service providers, academics and advocacy groups were seen as appropriate to have access by about half the shelters. Shelters which expressed "other" views indicated that the shelters involved should be the ones to decide if information can be released and how the data should be used. Others suggested that the information should be released to those potentially providing funding and to government agencies.

With regards to raw data, most shelters (83 per cent) agreed that participating shelters should have access to these data, and 33 per cent agreed that government agencies should. Other groups were accepted by 24 per cent or less of shelters."

> In summary, shelters in general and government agencies were favoured for access to statistical summaries of multi-shelter information. Wide availability of summary reports was acceptable to most shelters while a great majority of shelters felt that only participating shelters were seen as appropriate to access raw multi-shelter data. This result means that raw data from the information system should only be accessed by participating shelters, with policies for appropriate distribution of statistical summaries to be determined by the participating shelters.

Provisions for different users (Q.17): This was an open-ended question, asking what kinds of differing provisions for information use, if any, should be applied to different types of users.

Seventeen shelters responded to this question. The chief concerns underlying the various responses seemed to be client privacy and confidentiality. One response stipulated that the release of individual names should be limited, implying that the SSO had perhaps not made it sufficiently clear that no such release would occur under any circumstances. Other responses stressed confidentiality or that only general information should be released to parties other than shelters. Another theme in the responses was shelter control of results dissemination. Three shelters stated that either shelters or a community committee should decide to whom information will be disseminated. Several shelters indicated that they thought requests for information should be accompanied by an explanation of the purpose for which the information would be used.

> These findings underline the need for data sharing agreements, to be agreed on by the shelters collecting the information. These agreements should stipulate who should be able to access what data and for what reasons. Sharing agreements and related decisions with regards to the dissemination of data may need to be overseen by a coordinating committee of shelter administrators.

Confidentiality/privacy issues

Collection of informed consent (Q.18): This question asked shelters to indicate what they considered to be the most appropriate means of obtaining informed consent: written, oral or some other means. The vast majority of shelters (87 per cent) favoured obtaining written consent from clients.

Construction of personal identifiers (Q.19): This was an open-ended question asking shelters for suggestions regarding the construction of personal identifiers. One-third of shelters provided answers to this question. Most suggested some combination of date of birth, initials and gender. Several shelters suggested Social Insurance Numbers (SINs), while several others objected to the use of SINs as being linked too directly to the client. One shelter suggested the use of health card numbers.

Client requests for personal information (Q.20): This question was divided into two parts, asking for acceptable and preferred methods of handling clients' requests to see their own information. The most preferred option was storing computer records at the shelter and consulting them on request. This option was rated "most preferred" by 43 per cent of shelters and was acceptable to 68 per cent. The second choice option was to store hard copy records at the shelter; this was preferred by 35 per cent of shelters and acceptable to 64 per cent.

Other confidentiality issues (Q.22): This question asked whether shelters foresaw any confidentiality issues arising from allowing shelters to exchange knowledge of the information already collected and not collected. Just under half of shelters (45 per cent) indicated that they foresaw no such issues.

A full 43 per cent however, indicated that they did. One was the absolute anonymity provided by shelters for abused women. Other shelters indicated a variety of issues, including clients' fears of being tracked, and the need to obtain client permission to request information from

other shelters. One shelter indicated that it would not share identifying information even with other shelters. Three shelters mentioned that the client should at least be aware of the information exchange, one suggesting that client permission should be obtained.

Information collection issues

When information is to be collected (Q.2): This question asked when the best time was to obtain information from clients. As in Q.1, this question had two rating scales for the list of options: acceptable and most preferred.

There was more consensus on this question. Obtaining client information when the clients enter the shelter was rated acceptable by 73 per cent of shelters, and doing so sometime during their stay (i.e., after admission) was also acceptable to 73 per cent. The most preferred option was clearly the former (on entry), rated most preferred by 62 per cent; after admission followed with a most preferred rating of 33 per cent. In each case, a significant minority seems to rate that particular option as unacceptable. Judging by the "most preferred" responses, however, it seems that one or the other of these two options would satisfy most shelters.

Information collection method—all at once versus cumulative (Q.21): This question asked shelters whether they would collect information system data from clients all at once, or cumulatively by asking two or three different questions on each client visit to the shelter. Most shelters (79 per cent) indicated that they would collect information all at once.

Types of information to be collected (Q.27): This was presented to shelters as a large multiple-choice question asking shelters to rate the importance of each of 32 possible indicators. In the first part of the question, shelters rated the various kinds of information as essential to obtain, not essential, or indicated that they were not certain. In the second part of the question, they were asked to specify which information items they thought would need to be mandatory

under the information system. The results are summarized in Table 3 which shows items ranked from the most essential (highest percentage of shelters indicating the item was essential) to least essential.

All of the information items except two were considered essential by at least half of the shelters, but only a few items were considered mandatory by the same proportion.

From Table 3, it is apparent that the information considered most essential is of an administrative nature: gender, date of birth, entry and exit date

(all over 90 per cent). These items, along with client name, were all considered mandatory by more than 70 per cent of shelters. Date of birth and gender were given high mandatory ratings (82 per cent and 73 per cent). Surprisingly, name was noted as essential by only 56 per cent of shelters, even though 73 per cent rated it a mandatory item. This may reflect confusion between what would be collected at shelters and what would be transferred to a central database.

The other most essential items were those concerning the reasons, immediate and general (both 87 per cent) for the client's homelessness.

Table 3:
Essential, Non-Essential and Mandatory Information

	Essential*	Not Essential	Not Certain	Mandatory*
Gender	100	0	0	73
Date of birth	93	5	2	82
Exit date	91	4	5	71
Entry date	91	4	5	75
Immed. cause homelessness	87	9	4	39
Underlying reason homeless	87	9	4	53
Reason any denial of shelter	85	11	4	45
Mental health problems	84	7	9	53
Source of income	82	11	7	47
Other health problems	82	7	11	49
Reason for leaving shelter	80	18	2	33
Substance abuse problem	79	11	11	43
Services which the client uses	78	15	7	31
Previous residence	77	16	7	31
Employment status	75	18	7	39
Dependants	74	17	9	33
Immigration status	72	22	6	31
Number of times homeless	69	18	13	24
First language	69	24	7	20
Where client will go after	67	20	13	27
Aboriginal status	66	27	7	33
Marital status	65	31	4	31
Next of kin	64	34	2	49
Occupation	62	27	11	18
Level of education	61	30	9	18
If on housing waiting lists	60	26	13	12
Name	56	37	7	73
Country of origin	52	38	10	18
Times turned away by a shelter	52	30	18	18
Aliases	47	35	18	28
Experiences at shelter	47	35	18	23
Other	10	0	0	8

Notes:
* Shelters were asked to rate the listed kinds of information as essential to obtain, not essential, or to indicate that they were not certain. In a second part to the question, shelters were asked to specify which information items they thought would need to be mandatory under the information system.
Items indicated as essential or mandatory by two-thirds of shelters in bold.
Based on 58 responses to the feasibility study, representing 62 shelters.

These were followed by other questions on previous denial of shelter (85 per cent), mental health problems (84 per cent), source of income (82 per cent), other health problems (82 per cent), reasons for leaving shelter (80 per cent), substance abuse problems (79 per cent), services used (78 per cent), previous residence (77 per cent), employment status (75 per cent) and dependents (74 per cent).

In general, half of all the information items presented were rated essential by three-quarters or more of shelters, indicating a strong need by shelters for such detailed information. Other items rated essential by a majority included, for example, immigration status (72 per cent), the number of times they have been homeless (69 per cent), language (69 per cent), where they would go after the shelter (67 per cent), Aboriginal status (66 per cent) and marital status (65 per cent). Additional information items mentioned by shelters include number of times shelter used, province of client origin, specific client dietary needs, place of birth and client feedback/outcomes evaluation.

The results suggest that information priorities as to what should be collected may be extensive and vary considerably among shelters. They may also vary from the priorities of CMHC or funding agencies generally. For example, shelters place a low priority on housing-services-related information, and few shelters (probably only those in certain regions) place a priority on measuring Aboriginal status, which would be of concern to federal agencies, and potentially to provincial/territorial sources of funding of shelter programs.

These variations may reflect several factors, including the differences in shelters, i.e., shelters with different types of programs will have different information priorities. For example, some devoted only to emergency shelter, with no supporting programs, would have little need or justification for "case" and "services" data. It should be noted as well, that shelters will wish to record a wide range of "commentary" such as

names of doctors or relatives, administrative data (for reporting to funding sources) and other unique data in addition to classifications or codes on background/demographic variables which would be captured to the central database.

A wide range of data is needed but shelters could have the option of regularly completing only parts of a longer form. This "opt out" would avoid the problem of shelters providing poor quality indicators on questions they were not committed to asking clients."

Benefits and costs to shelters

Benefit and usefulness of information system to shelter users (questions 23-25): Question 23 asked whether shelters would benefit from the creation of an information system. Nearly all respondents (90 per cent) indicated that they felt shelters would benefit from an information system." Question 24 asked whether shelters would use the information generated by an information system. Again, nearly all shelters (93 per cent) indicated that they would use the information.

Question 25 asked what the key benefits would be from an information system. All three options listed were given high ratings. The use of statistics for advocacy and planning (85 per cent), for internal management (74 per cent) and for case management (60 per cent) were all indicated as key benefits by the majority of shelters. Generally, these uses were all associated with a common set of key administrative, demographic and need indicators identified in Question 27:

- administration: entry and exit dates;
- demographics: age (date of birth), gender; and
- needs: underlying reason for homelessness, mental health and other health problems, and source of income.

These results suggest that these are the most important variables, which should be captured in system reports.

In addition, a number of other benefits were described by shelters. Three shelters mentioned the assistance to fund-raising efforts an information system would provide. Others mentioned aid to long-term planning, and the identification of dangerous persons and of gaps in service as foreseeable benefits.

> Nearly all shelters (90 per cent) indicated that they felt shelters would benefit from an information system, and that important benefits would occur in advocacy, planning, internal management and case management. The outputs from the information system must be designed, therefore, to provide data that can be used for these purposes.

Potential drawbacks (Q.26): This question received responses from most of the shelters participating in the survey. Shelters pointed out a number of potential drawbacks associated with an information system.

The most frequently expressed concerns involved the resources necessary to set up the system. Shelters specifically mentioned the need for new training (five shelters), costs for new equipment and other resources (seven shelters), and the drain on staff resources (four shelters). It was pointed out that shelter staff are already overworked, and two shelters specifically mentioned additional funding as a factor that might be necessary to the success of information system implementation. Other concerns revolved around the potential for breaches of confidentiality and client resistance to participating in the system. One response raised an associated issue, that clients might "be embarrassed later in life" and want to obtain original copies of records concerning themselves. A few shelters also expressed concern that an information system could be used to discriminate against homeless persons, or be used against shelters when they were requesting funding.

How would shelters use an information system?

Shelter information needs (Q.28): This open-ended question asked shelters to detail their current information needs and how an information system could be designed to meet those needs.

A majority of shelters responding to the survey provided input into this question. Shelters mentioned many different kinds of "information needs," ranging from describing the particular indicators they use to listing their equipment needs for computerization, to addressing more global concerns. Several themes can be isolated from this widely varying set of responses.

Use of Information

Shelters described several different ways they would make use of an information system:

- to track individual clients;
- to better understand the demographics of the client population;
- to make regional comparisons;
- to document needs for funding requests; and to coordinate the service they provide with other community services, such as food banks.

Shelters also expressed interest in having more information made available to them about what kinds of services are provided for homeless people in different regions and by different agencies (government and non-government). Several shelters expressed interest in computerizing their pen and paper record-keeping systems. These shelters mentioned the need for computer hardware, software and training. One shelter also suggested that further interviews would be necessary in designing a pilot study to get a full sense of what its information needs are.[11]

Reports

For individual shelters (Q.14), this need was reflected in the request for monthly reports on the shelter, with quarterly roll-ups. For multi-shelter information (for a city, region or the nation), sub-reports were seen as being most useful on a quarterly basis.

> The variety of data indicated as priority by shelters points to a need for reports providing administrative, demographic and needs roll-ups on a monthly and quarterly basis, showing comparisons to other shelters or cities, and historic trends, as the HIFIS database develops.

Such reports would represent the first stage of using this information, with other uses emerging as, for example, shelters, policy makers, advocates and others gain experience with, and better understand, the potential of the HIFIS data.

Other Issues

Other issues and remedies (Q.29): This question asked shelters if they saw any other issues which the information system should consider, and how these issues might be best addressed or remedied. Of the shelters which responded to the feasibility study survey, about half provided a response to this open-ended question.

The most common issues mentioned by shelters were client-centred. These included:

- confidentiality (the most common);
- client intimidation or reluctance to participate;
- further loss of dignity by clients;
- the time clients have to spend waiting; and
- the potential that information system records could be used against individual clients.

While some shelters mentioned total anonymity as a solution to the confidentiality issue, others emphasized clear policies and communication with clients on how their information would be used. Several shelters stipulated that participation in the system should be optional for clients,

and that information system data should not be used by shelters to influence their decision to admit clients.

A few shelters recommended that further development of an information system should include consulting homeless persons directly on what their needs are with regards to such a system. As one shelter described it, the information system should be "a non-clinical approach; non-judgmental, friendly environment, non-institutional."

Another set of issues revolved around the additional time and staff resources. As a remedy, shelters mentioned keeping the list of questions short and allocating the necessary staff time to data collection and handling.

> These results suggest that shelter concerns with client input should be reflected in the communications component of a pilot project, with client consultation being one element of a pilot's design and start-up.

Are shelters interested in participating in a pilot information system?

Readiness to participate in an information system (Q.30): This question asked shelters if they would consider participating in a data collection and information system.

> The majority of shelters expressed willingness to participate in a pilot information system, but a large minority said that they were uncertain: 63 per cent answered "yes", that they would consider participating; and 37 per cent answered that they were uncertain if they would consider participation. No shelter rejected the concept of a pilot information system

Those who were uncertain about participation in an information system tended to be concerned about the cost (monetary as well as staff time)

to the shelter of implementing the system, confidentiality issues and the usefulness of the information once it was collected.

Some would want more information (Q.31):
This open-ended question asked what other information (if any) CMHC could provide to shelters about the proposed information system or pilot test. A number of shelters requested further information. Of these, several merely asked to be updated on further developments. Other requests were varied. One shelter wanted, in the event of a pilot test, to know how clients reacted. Others asked what additional resources would be provided to shelters to help implement the system or assist with their main resource need— housing. Another shelter suggested that an information system could be connected to similar systems tracking persons who are seeking affordable/subsidized housing, thereby addressing homelessness in a more comprehensive way.

> Overall, the results to date suggest that interest in an information system is strong, and that such a system could be designed to take into account the diverse needs of shelters. This means that development of a pilot system will be a sensitive matter, requiring intensive work with the shelter communities across Canada, sensitivity to different needs of shelters and a certain degree of flexibility.

Operational notes

Overall, the feasibility study results suggested that considerable on-the-ground time may be required to develop a pilot study. Shelters will need to fully understand the details and the process of implementing an information system before they agree to participate. They will want

to know the costs (monetary and human resources), risks (i.e., confidentiality) and benefits. This consultation process will need to be in person, and may need to occur on more than one occasion with certain shelters.

Overall, interest in the idea of a pilot information system was strong, with a majority of shelters expressing interest in many major cities in Western Canada, Ontario and Atlantic Canada. Shelters in Québec's two largest cities, Montréal and Québec City, may be hesitant to consider implementing an information system in the immediate future, as they have recently participated in a major data collection effort. However, discussions with shelters in Trois-Rivières have shown that, at this time, Québec interest in a pilot study outside of these cities does exist.

Other notes

On a general level, the study pointed toward a need for improved information about shelters at a national level. For example, as noted in the introduction, no list of shelters and addresses across Canada was available to the researchers at the start of the study. Such lists are available for family violence shelters, through the National Clearinghouse on Family Violence. It could be useful if this information were provided under one of the national clearinghouses or another agency on a regular basis.

This points to a broader need for communications and linkages between shelters, such as might be provided by a national association of shelters. Such an organization could provide an avenue for sharing best practices, and also for responding to topics such as the focus of this study—an information system for shelters.

Conclusions

The feasibility study results suggest that shelter interest in a national information system is substantial and widely based across Canada, and that it is feasible to develop a pilot information system for shelters for homeless persons and individuals in Canada.

The researchers recommend, therefore, that such a system be developed, with strong shelter input at each stage as has been the case so far. Such a system would be used by participating shelters, with important uses for planning, advocacy and case management. The system would be developed on a PC-based model, with key characteristics (on confidentiality, access, reporting, etc.) reflecting the most typical choices indicated by shelters in the feasibility study.

Dealing with the Issues

Development of a pilot study will require careful attention to concerns which shelters have expressed regarding confidentiality and use of data, and the diverse technical capabilities and preferences of shelters. Various obstacles may be significant, and thus call for a consultative process to ensure that a system, if developed, is driven by truly informed users. Additionally, a step-by-step process which builds consensus among potential users is indicated, suggesting that to some extent, developing a pilot project is as much a "community development" project as a technical exercise.

Complexity of shelter needs

Additionally, the fact that shelters differ in their information system needs must be seen not as a problem, but rather as a reflection of different types of programs and needs. These vary considerably from shelter to shelter, sometimes because of unique program priorities of shelters, and in some cases from community to community, because of different types of community needs, and different funding mechanisms. Thus, an information system suited to shelter needs could be developed in a variety of ways, and could be delivered through a variety of computer software approaches. It must be emphasized that providing for a certain amount of flexibility is a key factor in designing a system that will be widely used.

Existing systems

A number of shelters have already constructed their own information systems of varying scope and technical sophistication. Existing systems may provide lessons which the pilot study should evaluate and build on.

> The need for flexibility in an initial pilot system is a key issue for CMHC, representing certain dilemmas, since a "model" system which is inflexible will not apply to all shelters but a system which is highly flexible with many methods and many software approaches may be too costly to develop and maintain.

Recommendations: strategies for Implementation

It would be desirable to develop a pilot information system using the following steps/strategies.

1. **Begin the consultative process now.** CMHC could begin the process by circulating its report to participating shelters and sources of funding in the near future to obtain feedback and comments.

2. **Immediately form an advisory committee.** Members would come from shelters and provincial, territorial and municipal funding bodies; the purpose of this group would be to review the emerging pilot, and the plans for

content, administration, utilization, governance, marketing, etc.

Such a group could be formed in a somewhat "virtual" way from the pool of agencies and individuals already involved in reviewing the development of this study, thus minimizing costs. Such a group could be developed as an advisory group to CMHC and the consultant team undertaking the next stage of the study, reducing the formality of the process.

By relying on such a sectoral advisory group (formed by shelters and their sources of funding), CMHC can obtain guidance in a variety of ways, and ensure better take-up of the subsequent pilot information system. Ultimately, a governance process for the information system could emerge from this grouping.

3. **Integrate design.** CMHC should consider developing parts Two and Three of Phase II (computer programs) and Phase III (fielding a pilot) at the same time (same supplier). The rationale for linking the computer programming development to the field tests, would be to ensure seamless delivery and accountability for the entire process.

Difficulties might ensue in locating suppliers who could provide both types of services, but the alternative would likely be a greater need for CMHC coordination and linking, and a risk in moving between phases.

4. **CMHC will need to determine resource allocations,** the type of support it will provide (if for hardware, training, etc., in addition to software) as part of the pilot process and its expectations/strategy for partnering with agencies involved in the funding of shelters participating in the pilot project.

5. **Develop a "model" demonstration system.** Begin the pilot with a single test "model" community or shelter to show the advantages and to work out the complications in the system. This will provide for an

example of success, and a chance to remedy failures on a smaller-scale basis, before extending the pilot to other communities.

6. **Have the advisory committee consider a variety of design and development issues.** Some of these are:

   - Must all shelters participate for the system to be useful? (It seems improbable that all shelters will participate in an initial pilot, except in communities where all shelters are funded by a central agency which mandates participation.) Additionally, for a test, participation by smaller numbers of shelters may be more sensible. What will governance be?

   - What will the extent of on the ground developmental work with communities be? Generally, the experience with major data collection efforts in Québec (Fournier study) suggests that on-the-ground demands may be substantial for securing shelter participation and maintaining that participation.

   - What will the treatment of unique identifiers for clients be? What should he exact variables and codes be for the system data collection forms?

7. **Build evaluation into the pilot process,** including an evaluation of utilization advantages for the pilot system as compared to the pre-existing systems found in some shelters. An evaluation of the pilot could include a comparative analysis of information use in existing major systems such as that of Metro Toronto, and specific shelters which are already using information systems.

8. **Resolve developmental aspects of the process** through a competitive tender process to be co-managed by CMHC with its advisory committee.

Information system specifications

The following details could be modified by CMHC or its advisory committee. These are intended as general guidelines for technical personnel developing a system and are of possible use in a competitive tender.

Background

Canada Mortgage and Housing Corporation (CMHC) is proposing to develop and pilot test a method to collect information on homeless individuals and families using shelters in Canadian urban areas. As envisioned, the long-term goal of the Homeless Individuals and Families Information System (HIFIS) is to collect standard information from each person entering a shelter (defined as permanent shelters designated for homeless people, runaways, or neglected or abused women) in each of Canada's major urban areas. The more immediate goal, assuming interest from all parties involved, is to implement a pilot test of such an information system in a minimum of one urban area in each of British Columbia, the Prairies, Ontario, Québec and the Atlantic provinces.

How would it work? The information system would enable shelters within a given urban area to collect set information about their clients, and forward that information to a database coordinator in a central location[22] for aggregation with the data from all other shelters in the city/region. The system would then provide outputs in the form of shelter, municipal, regional and national-level reports on shelter utilization, on information for case management, on analyses to assist with program planning and on other issues.

For shelters not currently using an information system, the result would be a significant increase in information and, potentially, of the quality of services available to the homeless. For shelters now using different types of self-developed systems, a gain would be found in the ability of a larger number of shelters (ultimately at municipal, regional, provincial and even at national levels) to compare statistical and trend information. Such a

system could serve internal data needs of shelters and also provide broader summary statistical information for planning and policy purposes.

The following system specifications have been drafted, based on the views expressed by the shelters in the feasibility study. Cost implications (who pays for what) have not been factored into the requirements.

Administration of the system

The system could be administered in each city or province by either a municipal government or provincial or other agency[23], or individual shelters, while ownership and management will remain with the participating shelters. Those administering the database will be advised by a committee made up of shelter representatives. This committee will be responsible for direction of the administrators with regards to confidentiality issues, distribution of the data, variables in the database, etc.

The administrators will be responsible for collecting and aggregating the data collected by the shelters, and for disseminating the data to the shelters (monthly and quarterly reports, individualized data requests), to participating government agencies, and to the public (on permission of the shelters).

Confidentiality and security

Any system must have clear safeguards in order to protect shelter client confidentiality. At the shelter level, access to the database must be restricted. Access to the system will therefore need to be controlled by a user name and password. While user names and passwords will initially be assigned centrally, users should be given the option of changing their passwords at will. Passwords will automatically expire after predetermined periods and users will have to create new passwords.

The user name and password will be used to give users read/write access to information they have entered. User names can be assigned to groups.

If funding is secured, and security issues resolved for implementing the information system through the Internet, it should restrict access to certain reports. Dial-in users with proper authorization can control access, remove user names that have access to their data, etc. Control over security should be clearly located in the system.

Data collection

The database should collect information regarding the top-rated 22 key variables from the priority listing in Table 3, as well as the person's name and any aliases which the shelter staff are aware of. It is anticipated that each non-text (e.g., name would be text at the shelter level) variable may have several codes. The databases should also allow shelters to specify certain variables to be used only for their own internal purposes (only those shelters would use these variables)[24]. Similarly, it can be anticipated that not all shelters will want to ask their clients all of the 22 questions: in these cases shelters might opt to not record data for certain questions.

A computer database will need to be developed for a Windows operating system to record information from the shelter users. Information will be collected from the clients as they enter the shelter. The system should allow for any of the following methods of data collection.

1. Staff interview client, or client fills in a questionnaire (on paper), and information is sent to a central location for information entry.

2. Staff interview client, or client fills in a questionnaire, and information is entered directly into a computer, then sent later to the central system by a direct modem connection or Internet, or diskette.

The input system will need to be flexible enough to permit the information to be collected by computer or paper (with a supplementary system to scan and record paper forms).

Once the information has been entered into the database, users will need to be able, with password restriction, to call up the electronic form to verify and/or correct the collected information. Users who submit paper forms should have the option of receiving printed versions of the input for verification. The number of shelters participating in the information system, and the number of clients for which they will collect data, will vary according to the city/region where the system is implemented.

Distribution of the data

Data will need to be distributed to shelters and others, as agreed on by the participating shelters, in two formats: raw data and reports with input methods to be customized to the requirements of individual users. The users should be able to specify that certain data cannot be distributed in raw form. It should be feasible to upload certain types of data from other existing information systems where compatible data exist. Custom data conversion routines may be necessary to add such data that is currently being entered into an existing computer system.

Handling the raw data

Data storage: Data will be stored in the central database. The data will be both fielded (numeric) and free-field (text). The database design must accommodate specialized sets of data for individual users. There must also be a mechanism to allow storage of data at offices of municipal or provincial database administrations.

Reports: The system must allow for a variety of reports. Monthly and quarterly reports will need to be provided regularly to participating shelters. These reports must be designed to be helpful to shelters for advocacy and planning (i.e., obtaining funding), internal management (i.e., identifying gaps in service) and case management purposes.

Administrative reports: The system will compile reports on:

*   when data are added and by whom;

- whether regularly scheduled data input has been received;
- whether regularly scheduled analytical reports are created; and
- when analytical reports are requested and by whom.

Analytical reports: The system must allow for the following types of report production:

- system must have a report writer program to easily create custom, one-time reports;
- regularly scheduled reports can be customized to the requirements of individual users;
- reports will be distributed by mail or e-mail (on decision of committee);
- system will create mailing labels for printed reports;
- users may dial in and view reports on-line with password restrictions;
- users may dial-in and initiate certain reports and view the results on-line with password restrictions.

Shelter reporting on a quarterly basis would provide key analysis of trends in causes of homelessness, repeat use of shelters and other key indicators. The contents of these reports would evolve over time under direction of the shelter steering committee.

Incentives

The system should evidence certain incentives.

- Users can get customized reports from the data.
- Users can collect data of special interest to them and have it stored and analyzed by the systems.
- Users can restrict access to their raw data.
- Users will received computer-based training in using the system.
- Users will be reassured about security and confidentiality.

Feedback

The system should allow for feedback and information sharing (on "usership" issues) among the participating shelters.

Six shelters, five provincial/municipal representatives and two experts critiqued the final report and provided the consultants with more information on the types of reports that they would prefer to come out of the information system. Their comments and thoughts are summarized below.

Reporting

Each type of organization which was consulted suggested slightly different reporting requirements of an information system, generally because each of their needs differs considerably. Here is an overview of their responses.

NGO which does a lot of social work with homeless persons and families

This organization is interested in collecting and using information to help develop new programs to get homeless families and persons off the streets, and to assess which individuals need to get off the streets. This agency indicated a need for reporting on the following variables:

- length of stay in hostel, age, bio-psycho-logical issues, number of dependants;
- income by dollar/source;
- marital status;
- cultural background;
- other agencies/community services utilized;
- employment history;
- last address (including type of accommodation);
- resettlement needs;
- client's projected future; and
- education/skills.

This agency also noted that the rapid increase in families using the shelter system would warrant a change to Table 3 of the report, where the following variables would be added: single parent-male, single parent-female, number of children, ages of children.

The above comments further emphasize, in the consultants' view, that reporting from the system should be flexible. Because issues affecting the homeless population and methods to deal with those issues change, it is important that the reporting from the system be able to adapt to provide relevant information.

Provincial/municipal governments

Respondents from these organizations were interested in summary or aggregate data only, on a quarterly, semi-annual or annual basis, showing provincial-level data with regional breakdowns. They suggested the following:

- basic summary statistics identifying the number of individuals and families accessing the shelter system and key characteristics of shelter users such as age, gender, income, mental health status and reasons for homelessness;
- regional/provincial migration trends in shelter usage;
- frequency of shelter use cross-tabulated with key characteristics of shelter users, including family type/size, age, gender, mental health status, reason for homelessness etc.; and
- frequency distributions of each of the variables by individual shelter, type of shelter, region and province (so trends can be compared).

Again, it was suggested that the data be collected in a way that would allow for maximum flexibility in data analysis, and that reporting on the key variables should be flexible.

Reviewers also discussed the tone of the reporting. One reviewer suggested that reports should emphasize and talk about what people *are*, rather than what they *lack* (housing). This could result in the demystification of these people and their situation. Homeless persons could thus be redefined according to causative characteristics (i.e., mental health) rather than the symptoms of

some of the characteristics (homelessness). The reviewer suggested that this redefinition would go a long way to help society solve the problems (rather than provide band-aid solutions to the symptoms).

Another reviewer suggested that:

> consideration should be given to collect[ing] information that sets out the broader context of homelessness, for example, lack of affordable rental or special needs housing, or lack of availability of community support services. Otherwise, used in isolation, the information collected from the shelters may lead to conclusions that individualize reasons behind homelessness.

Shelters

Reporting needs of the shelters emphasized administrative, and non-aggregated information as well as the aggregated data. Shelters suggested that they should have the ability to request reports from the information system that would provide statistics on the following data:

- how many people stayed at the shelter over a given time period;
- average length of each stay;
- average age and age breakdown of clients;
- number of meals served;
- history reports on a specific client; and
- many other operational information needs.

Shelters noted that they would be interested in seeing statistics.

It was noted that a particularly useful tool in one shelter's current information system, for example, is the ability of the system to track what client stayed where, and in what beds. They print out a bed list two to three times a day in order to ensure places for incoming clients.

Shelters were also very interested in obtaining the level of recidivism among their clients from the aggregated data. This information would allow shelters to determine quickly whether the clients

are suffering from long- or short-term homelessness (and thus determine whether permanent housing programs would be suitable).

This, it was noted, would also allow for the tracking of homeless persons across a region or country. It was reported that Nova Scotia shelters, for example, are finding that a number of their clients are former residents of Nova Scotia who left to find employment in other provinces and who have since returned to Nova Scotia. Learning about trends as such, would be of great assistance to certain shelters in responding to needs of clients.

Shelters emphasized that they don't always have access to the technology that is necessary to use the Internet, or to manipulate databases. Those that did have the technology suggested that reports be electronic as well as in paper form. Shelters suggested that reports from an information system be faxed or mailed quarterly, and that they should contain tables and statistics on all the variables in the information system, and particularly cross-tabulated statistics (i.e., mental health and homelessness). It was also suggested that the reports provide information on trends. Shelters also indicated a strong preference for receiving raw data.

Other comments and Issues raised

Resources

Concern was expressed by the majority of respondents regarding the establishment and funding of the information system. For example:

> It is my feeling that as a priority, CMHC should determine resource allocations for the project and identify any expectations of shelter funders at the outset of the next phase of the project.

> The question of financing the cost of a certain project will determine whether to go ahead with that project. The shelters do not have the necessary equipment and need training. There are also coordination costs at different levels.

A decentralization of operations could also allow for the decentralization of costs if the provincial partners feel sufficiently concerned.

What are the costs associated with operating a national shelter information system? Shelters expressed their concern about obtaining sufficient resources for equipment and training of staff. It is important to recognize that these will be substantial and will be ongoing, as opposed to one-time or start-up costs. What are the options for funding such a system? From reading the report it was not clear what your operating assumptions are in this regard. CMHC is funding the pilot. Are they also committed to funding the larger, national system, or is this funding to be sought elsewhere? To what extent will individual shelters be expected to bear these costs, or to seek additional funding from existing sources?

...limited resources may also create problems related to the acquisition of the necessary hardware and software to implement the project.

You don't talk about the costs involved in the set-up, particularly regarding computers.

There is no way for us of getting funding, and good computers which would be necessary are too expensive.

Validity of the Information collected

One of the reviewers was concerned regarding the validity of the data collected by the information system: how can the system ensure that all the shelters across Canada interpret mental health problems or substance abuse in the same way? It was pointed out that a number of variables could make the validity of this type of information questionable:

* the length of contact between the client and the data collector;

* the relationship that is established between these two people;
* the training of the data collector; and
* the data collector's sensitivity to these problems.

According to this reviewer, even collecting simple information, such as names, can become problematic for the validity of the data from the system: what happens when a person's name is spelled in two or three different ways in subsequent visits to shelters (i.e., Catherine; Katherine; Kathryn)? The above-mentioned reviewer made the following suggestions.

1. Distinguish the data that are collected for the shelter's purposes from that collected for the central database.
2. The shelter's data could include all those variables listed in Table 3.
3. The data sent to the central database would be limited to a small number of variables including the identifier code, a small number of socio-demographic variables and the dates the person was in the shelter.
4. Take all necessary steps to ensure that the small amount of information which is collected for the central database is standardized across Canada. This should be challenging in itself. Once this information has been standardized, supplementary variables could gradually be added into the central database.

This reviewer also suggested that CMHC should involve Canadian researchers dealing with topics related to homelessness, to work on developing the validity of the centralized data.

Confidentiality

One reviewer suggested two things with regards to confidentiality.

1. The personal identifier should not be created using the person's social insurance number. Confidentiality would be much more secure if an identification code was created using other client information such as date of birth, etc.

However, even this information should be encrypted before being sent to a central information bank.

2. The report should be sent to the Privacy Commission of Canada to obtain an opinion on all confidentiality issues which are discussed by the report. In this reviewer's opinion we have suggested possibilities which are against the *Privacy Act*.

Another reviewer was concerned that if raw data were released to the provincial governments that they would be obliged to make the data public.

Québec

Our Québec reviewer suggested that it may be more difficult to implement the information system in that province, largely because of the way shelters in Québec are financed. Financing is not uniform and recent budget restrictions have encouraged the shelters to perceive data collection activities as a form of administrative control which could eventually lead to less government funding. Furthermore, the timing of the implementation of the information system is not very good because it coincides with another study which is currently under way. Many shelters will not be interested in the system because of "study overload."

This reviewer suggested that the shelters in Québec City would be more open to participation in the information system than the shelters in Montréal: they seem to have really appreciated the results from an ongoing study, and they are open to improving their methods of collecting information on their clients. The reviewer suggested that in-person meetings be held with them to discuss the system and their involvement in it (if any).

Administration of the system

One respondent questioned the vagueness in the report regarding the administration of the system. "Isn't the administration of the proposed system, with attendant responsibility for confidentiality, quality and utility, a core detail to be worked out before deciding whether such a system is feasible?"

Another respondent stated: "Determination of a coordinator for the system may be difficult unless an agency within the community wants to assume responsibility. Our (provincial) department is not involved in the day-to-day administration of homeless facilities, so it is unlikely that we would have the resources to act as coordinator."

Compatibility with existing information systems

It was suggested by one shelter that there might already be data collection software developed by the shelters that would lend itself to the information system. "This would eliminate the need to re-invent the wheel." On the same note, one provincial respondent suggested: "It will be important that the new information system is not simply an additional layer of reporting required of shelters."

Advisory groups

One respondent suggested that advisory groups for the information system should include at least one representative of shelter users as well as representatives from shelter administrations and sources of funding.

1   This is reported in T. Peressini and others, *Estimating Houmeles ness: Towards a Methodology for Counting the Homeless in Canada*, Canada Mortgage and Housing Corporation, Spring 1996.

2   The Automated National Client-specific Homeless services Recording (ANCHoR) System, developed by the U.S. Departments of Housing and Urban Development, Health and Human Services and the Fannie Mae Foundation in collaboration with the University of Pennsylvania, is an information system which is used as a tool to provide information and understanding for consumers, providers, advocates and government agencies to more effectively organize the delivery of services to homeless persons.

3   It is a premise of the pilot study that in order to gain a broader understanding of homelessness, information from individual shelters should, with suitable deletion of private information, be combined in an overall community database.

4   Personal communication with staff, Metro Toronto Social Services, Hostel Division.

5   Such a system could be locally, regionally or provincially managed by shelters and/or their sources of funding, and could involve control and/or storage of data (control and storage could be separate) at each level. It is important to note that other systems (notably ANCHoR) have involved a concept of local database administration (in the ANCHoR system located in a municipality) but that important cost savings advantages accrue when a system, from a computer systems perspective, is centrally managed as a database, even though actual control/ownership/use of data would be determined by individual shelters. Note that a central system overall could also be compatible with a role for municipal or provincial database coordinators.

6   See: Tim Aubry, S. Currie and C. Pinsent, *Development of a Homeless Data Collection and Management System, Phase One*, Canada Mortgage and Housing Corporation, Summer 1996.

7   Data available at the time of the background research indicated that no specific funding was supplied for shelters for homeless individuals and families in New Brunswick, Québec, Yukon and Northwest Territories. (Source: Government of British Columbia background documents and interviews with officials in each province/territory.)

8   This system was examined through an interview with personnel at Metro Toronto's Hostel Division and several follow-up discussions. The system's questionnaires were also reviewed.

9   The Phase Once report, *Development of a Homeless Data Collection and Management System: Phase One*, by Tim aubry, S. Currie and C. Pinsent, CMHC, Summer 1996, and the Background Report *Estimating Homelessness: Towards a Methodology for Counting the Homeless in Canada* by Tracy Peressini, CMHC, 1996, were also reviewed. See Appendix D, Bibliography.

10 This was particularly reflected in, for example: T. Peressini and others, *Estimating Homelessness: Towards a Methodology for Counting the Homeless in Canada*, Canada Mortgage and Housing Corporation, Spring 1996, and other Canadian and American research. Begin, Patricia, *Homelessness in Canada: A Review of Recent Research*, 1995; Ambrosia, E., et al., *The Street Health Report: A Study of the Health Status and Barriers*

> *to Health Care of Homeless Women and Men in the City of Toronto,* 1992; Rossi, P.H., et al., "Strategies for Homeless Research in the 1990s," *Housing Policy Debate,* 1989; and others.

11   Calgary, Edmonton, Fredericton, Halifax, Hamilton, Kingston, Montréal, Newmarket, Ottawa, Québec, Regina, Saskatoon, Thunder Bay, Trois-Rivières, Vancouver, Victoria, Windsor and Winnipeg.

12   The completed questionnaires, however, represented the views of 62, and not 58 shelters since in four cases, two shelters in a given city were being run the same organization which provided a single response. The 84 per cent response rate quoted reflects this representation of views.

13   Such lists are readily available for other key groups. For example, a list of family violence whelters is maintained and published periodically by Health Canada's National Clearinghouse on Family Violence.

14   "Other" options also included asking the client for their preference of being interviewed or filling out a questionnaire themselves.

15   In response to this question, one shelter suggested having a confidentiality form for clients to sign. This last suggestion may have been overlooked, and considered as a given by many of the feasibility study respondents: the lack of suggestions in this regard is in direct contrast with the 87 per cent who responded in question 18 that written consent was the most appropriate method of collecting informed consent.

16   As well, a pilot project would need to aid shelters in this area if they would be collecting data not previously gathered.

17   Several shelters also suggested that receiving their information via e-mail and direct modem connection would be useful.

18   The answers in the other category stated that only agreed-to partners should be able to access the data.

19   A problem we noted in some existing systems is the failure of front-line agencies to always complete complex forms in a systematic manner.

20   One shelter noted specifically that statistics resulting from a national database would be misleading if not all shelters participate, as numbers would not reflect all shelters.

21   See Section 3, Operational notes, regarding probable need for "on the ground" work to develop a pilot information system.

22   See endnote 5.

23   See endnote 3.

24   The information system would allow for the creation of these unique variables by shelters for their own purposes (commentary, administrative data, etc.). These variables would not be uploaded to the central information system.

APPENDIX A:

A SUMMARY OF SYSTEM OPTIONS AND ISSUES FOR A FEASIBILITY STUDY FOR A PILOT INFORMATION SYSTEM FOR SHELTERS FOR HOMELESS INDIVIDUALS AND FAMILIES

Prepared by SPR Associates Inc.*

May 1, 1997

APPENDIX A: TABLE OF CONTENTS

Canada Mortgage and Housing Corporation (CMHC) is attempting to develop a data collection and information system which shelters for homeless individuals and families could employ as an administrative and statistical database. This document provides you with background information as to why CMHC is considering such a system, and seeks your views on its potential usefulness and design. This will help CMHC determine:

- the interest of shelters in participating in a pilot information system;
- who the different system users might be;
- what information the users might be putting into it, taking out of it, how often, how quickly, and in what form and volume;
- information uses (by whom, for what);
- type of information sharing agreements (e.g., between shelters and the overall database operator);
- how shelter agencies might obtain informed consent to gather the information from their homeless clients (privacy and human rights requirements); and
- what specific information on homeless individuals and families might be collected by such a system.

This document begins by providing background information on CMHC's involvement in the development of a feasibility study for a pilot information system on homeless persons and families. It then outlines possible alternatives for a pilot information system. Finally, the document describes a number of specific issues relating to the development of an information system and asks the reader to consider questions with regard to each specific issue.

SPR Associates Inc.,[1] the consulting firm retained by CMHC to conduct this feasibility study, will be contacting all those receiving this Summary of System Options in order to discuss the issues raised by the document, and to obtain your shelter's confidential answers to the questions it poses. (Answers of individual shelters will be strictly confidential: only summarized study results will be reported by the study consultant.) Each section of this summary document presents a set of options and issues which must be considered before an information system can be developed. *A separate set of questions is provided for each of Information collection and recording in Section 3 through to the end to help you record your views on each of the key issues. The questions are in the separate feasibility study assessment, which you can complete while reading the summary, or afterward.*

Background: Origins of the Pilot Project Idea

The development and testing of a pilot homelessness data collection and information system is part of a broader program of research on homelessness being conducted by Canada Mortgage and Housing Corporation (CMHC). It began in 1995 when CMHC convened a workshop of Canadian and American experts to explore ways of identifying the numbers and characteristics of homeless individuals and families. A key finding from the workshop, and the resulting report, was that services for homeless individuals and families (shelters, soup kitchens, day programs, etc.) provide the best base for enumerating the homeless population. This finding, and a successful example of a homeless shelter information collection system in the United States (the ANCHoR System[2]), led CMHC to consider pilot testing for a method of collecting information on homeless individuals and families in urban areas using shelters. This research began in 1996 with extensive consultations with shelters in Ottawa-Carleton, where shelters expressed substantial interest in an information system and its benefits.

Potential benefits of an information system

There are important benefits for shelters, homeless persons and others, to be derived from the collection of information on shelter users. An information system would help close the gap in knowledge on homeless persons. The collection of accurate data would allow for a better understanding of the numbers and characteristics of this population, which in turn may aid shelters to develop and present stronger cases/arguments to increase or maintain funding. The system would also benefit shelters by better profiling the clients they are serving and identifying their clients' needs. This information could thus aid shelters in planning programs or interagency liaisons.

By combining the information[3] collected by community shelters, useful overview information on the population using shelters in a given urban area could be obtained. This information would give program providers the necessary insights to develop programs that meet the needs of their community's homeless population. The information provided by the combined data could also be used to raise awareness of homelessness among the general population.

Cities with existing information systems, such as Metro Toronto, suggest that the value of an information system, and the comfort of shelters with a system, grows over the years it is in operation. *This suggests that a pilot test of an information system for shelters would be only the first step in a longer-term process.*

Preliminary feedback on the experience of shelters which are currently using ANCHoR in the United States has been very positive. These shelters have found that their information system provides much needed information on the shelter population. This information has provided hard evidence to support requests for increased programming and funding. The information system has also benefited the participating communities by allowing program planners to better allocate services by adjusting the mix of services to the family/person as needs arise. Further, some shelters have found that using the information system provides a much more cost-effective and simple method of gathering administrative information to be used for their internal purposes, including case management, where shelters provide or link into supplementary services.

The proposed pilot information system

As currently envisioned, the long-term goal of the proposed information system is to collect standard information from each person entering a shelter for homeless persons and families (defined as

permanent shelters designated for homeless people, runaways, or neglected or abused women) in each of Canada's major urban areas. The more immediate goal, assuming interest from shelters, is to design a prototype of the information system and then implement a pilot test of the system in a minimum of one urban area in each of British Columbia, the Prairies, Ontario, Québec and the Atlantic provinces.

Shelters within a given urban area would collect set information about their clients, and forward that information to a database coordinator (locally or elsewhere as determined by shelters) for summation with the information provided by other shelters in that city/region. The database coordinator could then serve the shelters and, to the degree that client confidentiality permits, others, with information for planning and policy purposes.

CMHC recognizes that because of limited resources, some shelters may be hard pressed to integrate this kind of information gathering with their other activities, even when the information would be useful to them, because of shortages of staff/resources or sensitivities about information collection. This feasibility study will help to assess concerns of shelters and the trade-offs, and to see what kind of system would be both useful to shelters and practical for them to implement. In the following pages we outline options for an information system and ask for your input.

What an Information System could include: Systems Options

In developing a pilot information system there are three important points to remember.

1. Benefits of an information system must exceed the costs for shelters, if they are to participate.

2. Shelters must have the key say in designing and evaluating the system.

3. CMHC will provide system start-up resources (support the development of computer software, etc.).

Many specific issues for shelters' consideration are noted below.

The Information process — an overview

The operation of an information system will revolve around, not surprisingly, the handling of information, namely gathering, storing and providing "outputs" (reports, analyses, etc.).

Figure 1 portrays one path that information could take through the proposed information system.

Each of these steps will be discussed in more detail below.

Information collection and recording

Please refer to questions 1 to 7 of the attached feasibility study assessment to record your views on the following issues)

Information collection

Asking even a minimal number of questions of those who use shelters may discourage some potential shelter clients from using shelters. This issue is addressed in Question 6. But assuming that information should be gathered, there are two basic ways in which information can be collected: self-administered questionnaire (a questionnaire which is completed by the shelter's client) or staff-administered questionnaire/interview (a questionnaire which is completed by shelter staff for the client).

Self-administered questionnaires necessarily involve the generation of pen-and-paper records while a staff-administered questionnaire potentially allows for the information to be directly entered into a computer database. In the case of a staff-administered questionnaire, the process of information collection must take place in privacy (e.g., a closed office or booth) to ensure client confidentiality.

There are a number of options for the mechanics of information collection.

Figure 1: Conventional Model

Shelter collects and records information

↓

Shelter stores information

↓

The information is transferred to a multi-shelter database

↓

Information is stored in the database

↓

Information is processed

↓

Different outputs designed to meet unique needs of shelters and others (as appropriate) are developed

Pen-and-paper records

Either clients or shelter staff (by conducting an interview) may fill out a standard questionnaire for each person staying in the shelter. Once the paper questionnaire has been filled out, the information can be entered into a computer system for the purposes of combining the information with that of other shelters. Information entry to computer can be done by shelter staff or, if the paper questionnaires are sent to the overall database, by the staff responsible for the maintenance of the overall database. Technology that scans each paper questionnaire, recognizes writing and automatically enters the information into a computer system could also be used to help reduce demands on staff.

Local computerized entry

This would involve shelter staff using a computer to directly enter client responses into a database program, storing the information on the computer's hard drive and transferring the information (through a direct modem connection or by sending diskettes) to an overall database.

Direct Internet entry

This option would involve the shelter having Internet access. The computer would be connected via a local Internet account to a central Web site, and information would thus be entered directly into the overall database. Security would be ensured by requiring a password to access the page (so no false information could be entered by unauthorized persons) and by programming the page for security-encryption so information cannot be intercepted and deciphered en route.

Pen-and-paper methods have the advantage of involving no technical upgrades and relying on available expertise. Self-administered questionnaires are very likely the simplest way to gather information; however, this method faces a number of limitations. Shelter clients may not be able or willing to self-administer questionnaires due to emotional distress,

illiteracy/language barriers, psychiatric or physical illness, etc. As well, shelters would have to have pencils, clipboards and chairs available in a reasonably quiet area for forms to be filled out legibly. Self-administered questionnaires also place more burden on the shelter client and therefore would allow for fewer questions to be asked. All of these methods have the disadvantage of requiring some type of queue, which may not fit the shelter intake style.

It is important to note, however, that it is possible to avoid collecting the same data from the same people on a daily basis. By devising a system that avoids collecting the same information more than once, intake line-ups will decrease, as will the burden on the respondents, and the time and resources required by the shelters to collect the information. Methods of collecting duplicate information and lessening respondent burden are described in more detail later in this document.

Staff-administered questionnaires, and the two computer options, would require the devotion of an office or booth to the interview process and would require shelter clients to line up for a one-by-one intake process. Staff-completed questionnaires would, however, ensure that questionnaires are filled out properly (to the extent that the client is willing to answer the questions orally), and would provide greater assurance that informed consent was obtained.

The main disadvantages of computerized systems would be the cost and technical obstacles involved in every participating shelter having a computer, the necessary software and computer training. As well, having the interviewer's attention focussed on a computer during the interview can sometimes convey an impersonal impression and may disrupt empathetic listening on the part of the interviewer. On the positive side, computer entry would enable a system to provide fast turnaround, and generate reports as well as allow shelters to perform statistical analyses of their own information. Furthermore, many shelters may already use computers for record keeping.

The only obstacle to using the Internet is that it would require shelters to have a modem, an Internet account and knowledge of how to use the Internet. On the other hand, the Internet option's major benefit is that it eliminates the need for on-site electronic information storage and the need for the shelter to transfer the information to an overall database, meaning that shelters would *not* need to configure their computers to make them more secure', purchase specialized programs to store the information, lock the computer in a secure room, etc.

For this reason, the Internet option is probably the least expensive and most convenient way for shelters to collect the information once the computer equipment and Internet access are in place.

A final option might be the optimal one. It would be to have a variety of methods available for shelters to choose from (i.e., pen and paper or computerized) so each shelter could pick the method that best meets its needs and resources.

> Computerized data collection can provide statistical and administrative data for shelters, but can also be developed in a flexible manner, to meet a variety of needs, such as reporting to agencies providing funds and case management. These benefits have proven substantial in the American ANCHoR information system.

Storage of information at shelters

(Please refer to questions 8 and 9 to record your views on issues raised in this section.)

Information, once collected, may have to be stored by the shelter organization before being combined in an overall database. In order to protect the privacy of the clients, paper records should be stored securely. The storage of computer records on site would likely require password protection in addition to the computer being placed in a locked office. Staff with access

to the information may have to sign security agreements that prohibit unauthorized disclosure. While this is primarily a matter for each shelter and the legislated privacy requirements of each provincial/territorial jurisdiction, there may be universal safeguards that should be built into the information system.

An overall information processing function

(Please refer to Question 10 to record your views on issues raised in this section.)

Paper files can be faxed or photocopied and shipped to an overall database. Carbon copies may be useful to shelters using pen and paper so a copy of everything that has been sent to the overall database can be kept on file in case of loss or damage in the mail.

In-house computer files can be sent electronically by e-mail or by direct modem connection (e.g., ZModem file transfer). Alternatively, they could be put on floppy disk and physically shipped. Therefore, inputting paper files on site to computer would save costs. Direct Internet input automatically takes care of data compilation.

Overall storage, information processing, reports

(Your views on issues raised in this section and in the next can be recorded in questions 11 to 17 of the feasibility study assessment form.)

Security

The precautions which are necessary to provide secure information storage in the shelters also apply to storing the information in an overall database. The issue of how the combined multi-shelter information obtained in a given city/region is to be stored and processed will be determined, in part, by the end users of the information, mainly the shelters themselves. This is especially true if not all the end users will be given the same access to the information which is produced.

Some examples of end users may include:

- participating shelters;
- community organizations;
- advocacy groups; and
- policy makers.

Outputs from the information system which may be distributed to all or some of the above users include, for example:

- written reports on multi-shelter information;
- raw multi-shelter information:
  - on CD-ROM
  - downloaded through the Internet
  - diskette;
- statistical summaries (tables) on multi-shelter information; for example, summaries for the larger urban area;
- statistical summaries (tables) on individual shelter information (to shelter only);
- written reports on individual shelter information (to shelter only);
- raw information from a specific shelter (to shelter only); and
- information tabulations created on request by the database.

The written reports provided to the users would summarize the main findings from the information system and provide some general conclusions, whereas the statistical summaries would provide tables relating to specific variables. The content of the different reports and the variables used in the statistical summaries would be determined in conjunction with the shelters as well as other user groups. On the other hand, the raw information, stripped of client identifiers when sent to persons outside the specific shelter where the data was collected, would be provided to the users to conduct their own analyses. Finally, specialized information tabulations could be conducted by the database coordinator and supplied to the user in a mutually agreeable format.

Raw information could be provided to the information user in three formats, all of which would require the use of a computer. An information request could be sent to the coordinator for the overall database who could prepare either a CD-ROM or diskettes with the requested information. In these cases, the database coordinators would be responsible for ensuring that only the authorized parties have access to the information.

Using the third format, the Internet Web page could be programmed so, through the use of a password, authorized users could access the information (raw information, reports, tables, etc.). Again, security passwords would be needed to access information which is not intended for public use. Different types of passwords could be formulated to allow different access to the information. For example, each shelter could be given a password that would allow it to retrieve its own shelter information, as well as the summary information, but not the information of other individual shelters, unless sharing agreements have been signed.

System administration

This Summary of Systems Options assumes throughout that the final resting place of the information would be located regionally.

A number of options for database storage and administration exist. In the longer term, these might include:

- university;
- municipal or other government;
- community agency; or
- private research services (consultant).

Housing the information within a department of a municipal or other government could be beneficial if it were located near a government agency which is either directly responsible for, or in a position to influence, service planning for homeless persons and families. Further, governments would have easy access to individuals with the necessary technical skills to properly manage and produce findings from the system. This option may offer the most

potential for creating the most beneficial cost-effective partnership for operating the system.

Housing the database within a government may lead to concerns that the information could be used for purposes other than those originally intended (i.e., to monitor social assistance benefits). These concerns could be addressed if confidentiality provisions were strictly enforced (i.e., that personal identifiers were seen only by those administering the database, or only by local shelters, vis-à-vis their own clients), and if agreements regarding data release were drawn up.

Housing the information at a local university is another option: a university would provide technical support to the shelters in return for training and research opportunities. External funding would be needed to cover costs incurred by the university to operate the system. Universities can provide objectivity and the required technical skills for maintaining the information system. Further, a university's ethical review process can ensure that information base procedures meet proper ethical and confidentiality standards. Finally, university involvement would provide access to academic research funding for the development of the system and for studies that supplement the information produced by the system. Limitations to the use of a university include the possibility that the demands of managing the system may outweigh the research and training benefits which it would provide. Further, this option would not be feasible if it is determined that academics should have limited access to the database.

Community non-profit agencies would ensure that the data yielded maximum influence on local programming and planning. Their knowledge of the social service sector would ensure the usefulness of the information. However, the public may perceive a bias in the use and interpretation of the information, and agencies may lack influence on service planning, funding and policy formation. Private research services (consultants) could also provide research services and knowledge of social services to help ensure

the usefulness of the information. Thus a wide range of choices exist for managing an information system.

As mentioned above, a summarized information pool should be used to produce periodic statistical reports on the information and receive requests from system participants and outside researchers. This may require preparation of specialized tabulations. It is important to note that governance, or control of system administration could be located with shelters alone, regardless of the type of body administering the technical system.

Confidentiality

(Your views on issues raised by this section can be recorded on questions 18 to 22.)

Homelessness puts people on the margins of society. It renders people powerless and robs them of their personal dignity. Social science research normally offers its subjects the right to refuse participation and guarantees that the information they provide will be kept confidential and used only for stated purposes. These rights and guarantees must be built into the information system from its very inception, to ensure that its implementation does not contradict its entire purpose, namely, providing benefit to homeless persons. This raises the point: Should any mandatory questions be asked in this information gathering process?

Mandatory questions

There are two options with regards to including such questions in the information system:

- some (very few) mandatory questions; or
- no mandatory questions.

The issue of whether or not any mandatory questions are to be specified, decides in fact whether participation in the information system as a whole is to be a mandatory condition for obtaining shelter, or whether shelter users will have the right to refuse to provide information

about themselves to the system. With the above human rights concerns in mind, the first system option is whether to require any mandatory information from shelter users at all.

This will depend in part on the current practice of shelter administrators. Most shelters likely already require the collection of minimal information, such as the names of clients, for their own administrative purposes, so the introduction of some such elements (such as name and date of birth) may involve little or no change to standard operating procedures. On the other hand, some shelter administrators may feel that any such mandatory exchange is unjustifiable.

Identifiers and confidentiality

Information collected in the course of survey research is guaranteed to be confidential. When dealing with a socially vulnerable group such as homeless people, confidentiality is especially important.

If any mandatory questions are to be used, therefore, and given that their use must reasonably be kept to a minimum, it makes sense to use some information element(s) which will identify the individual shelter user.

This will make it possible to gather cumulative information on shelter users, which would enable minimal demographic analysis even if no other information is gathered, answering such questions as whether shelters are being used by the same or different people each night, and therefore how many different people make use of shelters in a given time period; how long people stay on average; how often they return and at what intervals; and so forth.

Two means of constructing individual identifiers suggest themselves:

* gathering social insurance numbers; and/or
* using initials and date of birth.

For example, the second of these two methods would take "John Doe," born August 28, 1968, and construct an identifier such as: JD680828 (these methods assume that individuals present consistent identities each time they use a shelter, i.e., no aliases).

The SIN number method has the advantage of being somewhat more anonymous, and being more succinct in that it uses an indicator which has already been constructed to designate unique individuals. As well, shelters may already collect SIN numbers for administrative reasons. On the other hand, the SIN number has no research value and so adds an extra question to the intake form. As well, some shelter users may not know their SIN numbers or may have lost their SIN cards. The initials and date of birth method avoids this by using name, which is collected anyway, and date of birth, which also provides demographic information about age. This method is likely to result in some errors (e.g., people reversing numbers).

Repeat users of the shelters

A concern arises whereby identical information could be collected from a client each time he/she enters a shelter. This duplication must be avoided to ensure that the information collection process does not excessively burden either the respondent or the shelter. *An effective information system could greatly reduce these problems, particularly if implemented through the Internet.*

Assuming that the pen-and-paper method of collecting information is being used, each client's forms could be kept on file for a given period (e.g., one month or one year) and updated with "attendance" information only on subsequent visits to the shelter within the given period (that is, some record is kept of each day the person uses or "attends at" the shelter) . This method is used in one major existing information system. When a new period commences, the previous period's paper files would be sent to the overall database, and thus a new form would have to be filled out for each repeat shelter user, regardless of the fact that they may have filled out the form

during the previous period. Likewise, shelter users who stay at more than one shelter would have to have one form filled out at each of the shelters where they spend the night. This system is duplicative, but preferable to collecting the same information every time a client enters the shelter. A similar system could be implemented for those shelters automatically entering the information on a computerized database.

For those shelters using the Internet, some type of access to the client's file would be necessary to avoid collecting duplicate information. While the Internet should not allow shelters to access information collected by others unless by agreement, it could allow them, through the use of a password, to access data which has been previously collected by their own staff. This would allow shelters to avoid asking their clients the same questions each time they entered a shelter. The Internet could also be programmed to inform shelters that the questionnaire has been completed by a given client in the city/region and the date the information was collected. This would reduce duplication of information collection among shelters.

This final option could be modified slightly, if desirable, to further ease the respondent burden on the shelter clients. It would be possible to program the Internet server to tell shelters which information is missing from a given client's file. For example, if John Smith spent a night at shelter X and answered only the first two questions of the questionnaire on entering that shelter, shelter Y would be informed that questions 3 to the end still needed answering (via the Internet) when Mr. Smith entered that shelter. This would help fill in the gaps in the information collected by other shelters.

If this type of programming is implemented, it could also be used in other ways than to fill in missing information: shelters could intentionally ask clients only a few questions (as opposed to an entire questionnaire, of a length still to be determined) each time they entered a shelter. That is, a different couple of questions would be asked of the client each time he or she entered a shelter.

This would reduce respondent burden and staff interviewing time. However, this approach could result in a higher percentage of incomplete files for those shelter clients who do not return often enough in order for all questions to be answered.

Informed consent

To protect the human rights of information system respondents, information collection must involve securing informed consent. This necessitates explaining to respondents the purposes for which the information is being collected; who will have access to the information; the nature of the confidentiality being guaranteed (i.e. that information will not be released for other purposes or to other parties without the permission of the respondent); and the consequences, if any, of not providing the requested information. Consent further implies that information collected will be used only by the parties and for the purposes which are described to the client when consent is obtained. Release to other parties or use for other purposes would require written consent of the original research subject (which could be difficult to obtain). Informed consent can be either written or verbal. Written consent may be preferable.

Privacy (accessibility of the information)

Clients should have access to their records on request. This means that if information is stored in overall databases, either paper copies should also exist at the shelter or they should be easily produced. If possible, hard copy records should be stored in a way that is both secure and directly accessible so requests for personal information can be immediately satisfied. Records could also be supplied on request to the shelter, through the mail or via the Internet, by the coordinator of the overall database. Information must be accessible to shelter clients for a minimum of one year.

Conclusion: Your Shelter's Possible Role

Finally, the development of an information system will only work if it is useful to and has the support of Canadian shelters. Therefore, we ask a variety of questions to help us determine interest in the development of the information system. We also ask questions to help us understand what information would be most useful to shelters (questions 23 to 32 of the feasibility study assessment). Thank you for your help.

About the Study Consultant: SPR ASSOCIATES INC.: The feasibility study for the pilot information system project is being managed by SPR Associates Inc. SPR is a Canadian company engaged in surveys, evaluations and research in business, housing, Aboriginal Affairs and other areas of public policy.

The study team is led by Dr. Ted Adam Harvey, who has been involved in applied research, surveys and evaluation studies for over 20 years. His work has involved many types of studies including studies of social development undertaken while research director at the Social Planning Council of Metropolitan Toronto, and a number of recent studies of shelters for women who experience family violence. The majority of his recent research has been undertaken for various federal departments, including Canada Mortgage and Housing Corporation, Health and Welfare Canada, External Affairs, The Secretary of State, Indian and Northern Affairs, and Employment and Immigration, and for provincial ministries of social services, labour, housing, etc.

Other research team members include advisors such as Dr. Tracy Peressini (Professor of Sociology and Social Studies, University of Regina), a nationally recognized expert on issues in homelessness. She recently completed a related project for Canada Mortgage and Housing Corporation, entitled "Estimating Homelessness: Towards a Methodology for Counting the Homeless in Canada" (with L. McDonald and D. Hulchanski, 1995); and a number of other SPR researchers, including Micheline Ross, Sue Langton, Sylvie Baillargeon and Chris Powell.

For additional information, please feel free to contact Dr. Ted Adam Harvey at 1 800 363-0832.

APPENDIX B:

FEASIBILITY STUDY ASSESSMENT RESULTS
(based on survey responses received
as of August 18, 1997)

The information below shows the questions from the feasibility study along with the percentage of shelters indicating each "closed choice" answer.

General Information Collection and Computer Resources

1.(a) Which of the following methods of collecting reliable information and of transferring the information to a central location would be acceptable to you? (CHECK ALL THAT WOULD BE ACCEPTABLE)

    41%   (a) Clients fill in questionnaires which are sent to a central location for information entry

    32   (b) Clients fill in questionnaires which are then entered into the computer system by shelter staff

    48   (c) Staff interview client, fill in questionnaire (on paper) and send it to a central location for information entry

    20   (d) Staff interview the client, and enter answers directly into the overall database through the use of the Internet

    45   (e) Staff interview the client, enter answers directly into a computer, and information is later sent to the central system by a direct modem connection or the Internet

    32   (f) Staff interview the client, enter answers directly into a computer, and diskette with information sent by mail to a central system

    13   (g) Other (please specify): __(see report for information)__

1.(b) Which of the above would be the one most preferred method? (CIRCLE ONE LETTER)

    a (24%) b (7%) c (16%) d (4%) e (36%) f (6%) g (7%)

2.(a) In your opinion, which of the following times would be acceptable times to collect information from your clients? (CHECK ALL THAT WOULD BE ACCEPTABLE)

    73%   (a) When they enter the shelter

    18   (b) When they leave the shelter

    73   (c) During their stay at the shelter

    7   (d) Other (please specify): _____(see report)_____

    0   (e) None of the above GO TO QUESTION 3

2.(b) Which of the above would be the best time to collect information from your clients? (CIRCLE *ONE* LETTER)

    a (62%) b (4%) c (33%) d

3.(a) What is the highest level of computer, if any, that your shelter currently uses? (CHECK ONE)

    6%   (a) No computer GO TO QUESTION 7 BELOW

    2   (b) Macintosh Please specify what type: (no details were provided by these shelters)

    6   (c) IBM-compatible 286

    15   (d) IBM-compatible 386

    66   (e) IBM-compatible 486 or IBM-compatible Pentium

    4   (f) Don't know

3.(b) Which, if any, of the above mentioned computers are you currently using for intake purposes? (CIRCLE *ONE* LETTER)

    a (0%) b (0%) c (4%) d (4%) e (28%)

    67% Don't use computers for intake purposes

4.(a)   What type of operating system does your highest level computer use? (CHECK ONE)

    2%   (a) Macintosh
    6   (b) DOS
    90   (c) Windows
          (d) Don't know

4.(b)   Which type of operating system is used for intake purposes? (CIRCLE *ONE* LETTER OR CHECK BOX)

    67% Don't use computers for intake purposes

    a (0%) b (8%) c (26%)

5.   Does your shelter own a modem of 14.4 KB or better? (CHECK ONE)
    43%   Yes
    42   No
    15   Don't know

6.   Does your shelter have access to the Internet? (CHECK ONE)
    26%   Yes
    74   No

7.   Do you have or participate in an information system now? (CHECK ONE)
    42   Yes   Please describe, for example, if a paper system or computer system, etc. Feel free to attach pages and samples of forms (if any):
    58   No   13 open-ended responses—please see report

Storage of Information at Shelters

8.   Do you have any specific suggestions to ensure that the confidentiality of the clients is guaranteed while the information is being stored at the shelter?

    36 responses—summary provided in Section 3

9.   In your opinion, what are the obstacles involved in implementing the suggested security measures?

    23 responses—summary provided in Section 3

An Overall Information Processing Function

10.   What is your *preferred* basis for overall information processing, assuming equal protection of access, privacy, etc.? (CHECK ONE)

    16%   Paper system
    75   In-house computer system
    9   Internet system
    0   Other (please specify): _____

System Administration and Information Processing

11.(a) Which of the following would be an *acceptable* location for the storage and administration of the summary information? (CHECK ALL THAT WOULD BE ACCEPTABLE)

- 41%   (a) Municipal government
- 54   (b) Community agency
- 32   (c) University
- 18   (d) Private consulting company
- 20   (e) Other (please specify): _____ (see report)
- 13   (f) None of the above GO TO QUESTION 12
- 7   (g) Don't know

11.(b) Which one of the above would be most preferred for the storage and administration of the summary information. (CIRCLE *ONE* LETTER)

a (28%) b (35%) c (5%) d (9%) e (23%)

12.(a) What would be *acceptable* methods of accessing *your shelter's* information from the regional database? (CHECK ALL THAT WOULD BE ACCEPTABLE)

- 34%   (a) Regional database makes statistical reports available to each shelter via the Internet
- 70   (b) Regional database provides statistical reports to each shelter via mail
- 46   (c) Regional database provides specialized information tabulations on request
- 30   (d) Regional database provides CD-ROM
- 45   (e) Shelter raw information is available at all times through the Internet to the shelter (a security system would be devised whereby only the shelter can access its own information)
- 48   (f) Shelter is given its raw information on diskette for its own analysis and use
- 7   (g) Other (please specify): _____ (see endnote 17 for details)

12.(b) Which one of the above would be the *preferred* method of accessing *your shelter's* information from the regional database? (CIRCLE *ONE* LETTER)

a (11%) b (30%) c (6%) d (8%) e (21%) f (19%) g (6%)

13.(a) What would be *acceptable* methods of accessing *multi-shelter* information from the regional database? (CHECK ALL THAT APPLY)

- 35%   (a) Regional database makes reports available over the Internet
- 35   (b) Regional database makes statistical summaries (tables) available over the Internet
- 69   (c) Regional database provides reports at regularly established intervals and/or on request
- 63   (d) Regional database provides statistical summaries (tables) at regularly established intervals and/or on request
- 61   (e) Regional database provides specialized information tabulations on request
- 22   (f) Regional database provides information on a CD-ROM
- 44   (g) Multi-shelter information is available at all times through the Internet to participating shelters (a security system would be devised)
- 43   (h) Shelter is given multi-shelter information on diskette for its own analysis and use
- 30   (i) Multi-shelter information can be retrieved from the Internet
- 7   (j) Other (please specify): _____ (see endnote 17 for details)

13.(b) Which *one* of the above would be most preferred? (CIRCLE *ONE* LETTER)

a (8%) b (0%) c (31%) d (10%) e (6%) f (4%) g (25%) h (10%) i (4%) j (2%)

14. How often would you want to have updates on information/reports from the regional database?

(a)	Individual Shelter Information (CHECK ONE BOX)	(b)	Multi-Shelter Information (CHECK ONE BOX)
8%	Weekly	8%	Weekly
42	Monthly	32	Monthly
4	Yearly	8	Yearly
39	Quarterly	47	Quarterly
0	Bi-monthly	0	Bi-monthly
8	Other (specify): _(see report)_	6	Other (specify): _(see report)_

15. Who do you feel should be granted the right to use the reports and *statistical summaries* generated from the multi-shelter information? (CHECK ALL THAT APPLY)

69% Participating shelters only
62   Shelters in general
49   Non-governmental service providers
51   Academics
33   General public
55   Advocacy groups
60   Government agencies
 9   Other (please specify): _____(see report)_____

16. Who do you feel should be given/granted use of the *raw* multi-shelter information from the information system? (CHECK ALL THAT APPLY)

83% Participating shelters only
28   Shelters in general
20   Non-governmental service providers
24   Academics
13   General public
22   Advocacy groups
33   Government agencies
 6   Other (please specify): _____(see endnote 19)_____

17. What different information use provisions, if any, should apply to different types of users?
17 responses—see report

Confidentiality/Privacy

18. What do you feel is the *most* appropriate method of collecting informed consent for the collection of information for the information system? (CHECK *ONE*)

    87% Written consent
    11 Oral consent
    2 Other (please specify): ____(both written and oral consent needed)____

19. Do you have any suggestions regarding the construction of personal identifiers?

    19 responses—see report

20.(a) What would be *acceptable* methods of handling client requests to see their information? (CHECK ALL THAT WOULD BE ACCEPTABLE)

    64% (a) Hard copy records are stored at the shelter and consulted
    68 (b) Computer records are stored at the shelter and consulted
    30 (c) A request is made to a central database to send shelter the necessary information
    16 (d) Access to computer records through the Internet
    2 (e) Other (please specify): ____(paper record on premise) (see report)____

20.(b) Which *one* of the above would be the *preferred* method of handling client requests to see their information? (CIRCLE *ONE* LETTER)

    a (35%) b (43%) c (9%) d (9%) e (4%)

21. Would your shelter prefer to collect information for the system from a client all at once, or over time by asking 2-3 different questions each time a client enters the shelter? (CHECK *ONE*)

    79% All at once
    19 Asking different questions each time client enters
    2 Don't know

22. Do you foresee any confidentiality issues in allowing shelters to exchange knowledge of which information has been collected and which has not? (CHECK *ONE*)

    43% Yes What should be done about that?
    45 No
    11 Don't know

Conclusion

23. Do you feel that shelters would benefit from the creation of an information system?

    90% Yes
    10 No

24. Do you feel that your shelter would use the information generated from an information system?

    89% Yes
    11 No

25. What would be the key *benefits* of an information system (if any), as you see them? (CHECK ALL THAT APPLY)

    2% No benefits
    74 Improved statistics for internal management
    85 Use for advocacy, planning
    60 Use for case management
    21 Other (please specify): _____ (see report) _____

26. Please describe the potential drawbacks or problems (if any) of implementing an information system.
    36 responses—see report

27.(a) What information do you feel would be *essential* to collect for a useful information system?
   (b) Which, if any, of the above would need to be *mandatory* (you would have to collect the information to provide shelter under your administrative rules)? (CHECK BOXES FOR EACH of (a) to (gg))

		(a)		(b)	
		Essential	Not Essential	Not Certain	Mandatory
(a)	Name	56%	37	7	73
(b)	Date of birth	93	5	2	82
(c)	Gender	100	0	0	75
(d)	Aliases (other names used)	47	35	18	28
(e)	Next of kin/emergency contact	64	34	2	49
(f)	First language of the client	69	24	7	20
(g)	Aboriginal status	66	27	7	33
(h)	Immigration status	72	22	6	31
(i)	Country of origin	52	38	10	18
(j)	Marital status	65	31	4	31
(k)	Level of education	61	30	9	18
(l)	Employment status	75	18	7	39
(m)	Occupation	62	27	11	18
(n)	Dependants (if any)	74	17	9	33
(o)	Previous residence (i.e., hospital, apartment)	77	16	7	31
(p)	Underlying reason for homelessness	87	9	4	53
(q)	Cause of homelessness (eviction etc.)	87	9	4	39
(r)	Entry date	91	4	5	75
(s)	Exit date	91	4	5	71
(t)	Reason for denial of shelter (if applicable)	85	11	4	45
(u)	Reason for leaving shelter	80	18	2	33

		(a)		(b)	
		Essential	Not Essential	Not Certain	Mandatory
(v)	Services which the client uses (if any)	78	15	7	31
(w)	Experiences at shelter	47	35	18	23
(x)	Mental health problem (if any)	84	7	9	53
(y)	Other health problems (if any)	82	7	11	49
(z)	Substance abuse problem (if any)	79	11	11	43
(aa)	Source of income	82	11	7	47
(bb)	Where client will go after leaving the shelter	67	20	13	27
(cc)	Client's preferred type of housing	56	35	9	16
(dd)	Number of times turned away from a shelter	52	30	18	18
(ee)	If on housing waiting lists	60	26	13	12
(ff)	Number of times homeless	69	18	13	24
(gg)	Other (please specify): _____	100	0	0	8

28. Please describe in detail your shelter's current information needs and how an information system could be designed (if at all) to help you meet these needs.

   36 responses—see report

29. Are there other issues that such an information system should consider (for example, impacts on clients or their use of shelters)? Some shelter sector personnel we have spoken to expressed concern that information gathering would discourage some clients from using shelters. For each such issue, please indicate what you feel the issue is and what you feel the best practice or remedy would be.

Issue	Remedy or Best Practice

   29 responses—see report

30. Would your shelter consider participating in a data collection and information system?

63%	Yes
0	No
37	Uncertain

   NOTE: NON-RESPONDENTS TO THE SURVEY INCLUDED A NUMBER OF SHELTERS THAT INDICATED NO INTEREST, POSSIBLY ABOUT 15%

31. What other information (if any) could CMHC provide to you about the proposed information system or pilot test?

   No information is needed
   19 responses—see report

32.   Please fax a copy of any forms which you are currently using to collect information from your clients to 416-977-7747, or mail the form(s) to our survey office.*

_____   _____

Name of Shelter   Name of Person Completing Form   Phone Number

THANK YOU FOR YOUR ASSISTANCE IN REVIEWING THIS DOCUMENT. SPR ASSOCIATES WILL BE CONTACTING YOU TO OBTAIN YOUR RESPONSES TO THESE QUESTIONS, OR YOU CAN FAX THESE ASSESSMENT FORM PAGES TO 416 977-7747.

_____

*   Survey Office, 2 Carlton Street, Suite 804, Toronto, Ontario, M5B 1J3.

APPENDIX C:

INITIAL SAMPLE OF SHELTERS SCREENED
FOR THE FEASIBILITY STUDY

(68 were included in the final study sample)
(* = responding to survey)

Alberta Safe House Society, Calgary, Alberta*
Alfa House, Calgary, Alberta*
Avenue 15 Runaway Homeless Care Shelter, Calgary, Alberta*
Booth Centre, Calgary, Alberta*
Calgary Drop-In, Calgary, Alberta*
Mustard Seed, Calgary, Alberta*
Women's Emergency Shelter, Calgary, Alberta*
Herb Jamieson Centre, Edmonton, Alberta*
Hope Mission, Edmonton, Alberta*
House Next Door, Edmonton, Alberta*
Our Place, Edmonton, Alberta*
People In Need Shelter Society, Edmonton, Alberta*
The Salvation Army, Addictions &, Edmonton, Alberta*
Urban Manor, Edmonton, Alberta*
Women's Emergency Shelter, Edmonton, Alberta*
Fineday Family Shelter Society, Vancouver, British Columbia*
Lookout Emergency Aid Society, Vancouver, British Columbia*
New Beginnings House, Salvation Army Homestead, Vancouver, British Columbia*
Salvation Army, Dunsmuir House for Men, Vancouver, British Columbia*
Triage Emergency Services and Care Society, Vancouver, British Columbia*
Capital Mental Health Association, Victoria, British Columbia
M'akola Housing Society, Victoria, British Columbia*
Salvation Army Family Services, Victoria, British Columbia*
Sandy Merriman House, Victoria, British Columbia*
The Victoria Coolaid Society, Victoria, British Columbia
Main Street Project, Winnipeg, Manitoba*
Salvation Army Men's Services, Winnipeg, Manitoba*
Salvation Army Women' Services, Winnipeg, Manitoba*
Emergency Shelter, Fredericton, New Brunswick*
Adsum House, Halifax, Nova Scotia
Metro Turning Point, Halifax, Nova Scotia*
Phoenix House, Halifax, Nova Scotia*
Salvation Army, Halifax, Nova Scotia*
Good Shepherd Centre, Hamilton, Ontario
Harbour Rescue Mission, Hamilton, Ontario*
Inasmuch House, Hamilton, Ontario*
Interval House, Hamilton, Ontario*
Mary' Place, Hamilton, Ontario*
Men's Centre Good Shepherd Centre, Hamilton, Ontario*
Men's Social Services, Salvation Army, Hamilton, Ontario*
Native Women's Centre, Hamilton, Ontario*
Dawn House Women's Shelter, Kingston, Ontario*
Kingston Interval House, Kingston, Ontario*
Ryandale House for the Homeless, Kingston, Ontario*
Salvation Army Harbour Light Centre, Kingston, Ontario*
Transitional & Supportive Housing Services of York Region, Newmarket, Ontario*
Salvation Army, Ottawa, Ontario*
Shepherds of Good Hope, Ottawa, Ontario*
Union Mission, Ottawa, Ontario*

Women's Shelter, Ottawa, Ontario*
City Community Services, Thunder Bay, Ontario*
Deenditen Shelter, Thunder Bay, Ontario
Salvation Army Family Services Family Service Dept., Thunder Bay, Ontario*
Salvation Army Hostel Services, Thunder Bay, Ontario*
Sister Emelina Home for Women, Windsor, Ontario*
Windsor Y Residence, Windsor, Ontario*
Gite Jeunesse Beauport Inc., Beauport, Québec
L'abri d'espoir, Montréal, Québec*
La Maison du Pere, Montréal, Québec
Maison Marguerite de Montréal, Montréal, Québec*
Maison du Bon Acceuil, Montréal, Québec
Mission Old Brewery Mission, Montréal, Québec
Refuge des jeunes de Montréal, Montréal, Québec
Armee du Salut, Ville de Québec, Québec
La Maison Revivre, Ville de Québec, Québec
Maison de l'Auberivière, Ville de Québec, Québec*
Y.W.C.A., Ville de Québec, Québec*
Centre le Havre de Trois-Rivières Inc., Trois-Rivières, Québec*
Maison de Connivence, Trois-Rivières, Québec*
Waterston Centre, Regina, Saskatchewan*
Interagency Centre for Homeless, Saskatoon, Saskatchewan*
Interval House, Saskatoon, Saskatchewan*
Salvation Army Hostel, Saskatoon, Saskatchewan*
Saskatoon Soc. for Protection of Children-Crisis Nursery, Saskatoon, Saskatchewan
Y.W.C.A., Saskatoon, Saskatchewan*

APPENDIX D:

BIBLIOGRAPHY

Ambrosio, E., Baker, D., Crow, C. Hardill and K. Hardill. *The Street Health Report: A study of the health status and barriers to health care of homeless women and men in the City of Toronto.* Toronto, Ontario: Street Health, 1992.

Aubry, Tim, Shawn Currie and Celine Pinsent. *Development of a Homeless Data Collection and Management System: Phase One. Final Report.* Ottawa: CMHC, Summer 1996.

Begin, Patricia. *Homelessness in Canada.* Ottawa, Ontario: Minister of Supply and Services, 1994.

Blasi, Gary L. "Social Policy and Social Science Research on Homelessness." *Journal of Social Issues,* Vol. 6(4) (1990): 207-219.

Blau, Joel. *The Visible Poor: Homelessness in the United States.* New York, NY: Oxford University Press, 1992.

Bray, R.M., M.L. Dennis and E.Y. Lambert. *The Washington DC Metropolitan Area Drug Study: DC—Overview of Selected Findings From the Homeless and Transient Population Study.* Poster presented at NIDA's Second National Conference on Drug Abuse Research and Practice, Washington, D.C., 1993.

Culhane, Dennis. "The ANCHoR System Project." Unpublished. Philadelphia, 1995.

Dennis, M.L. "Changing the Conventional Rules: Surveying Homeless People in Nonconventional Locations." *Housing Policy Debate,* 2(3) 1991: 701-732.

———. *Coverage of Service-Based Methodology: Findings from the DC MADS Homelessness Study.* Paper presented at the Towards Census 2000 Conference, Arlington, VA, 1993.

Farrell, Paula. *ANCHoR System (Internal Manual).* Colorado: Colorado Coordinating Council on Housing and the Homeless, 1996.

Fournier, Louise. *Énumération de la clientèle des centres d'hébergement pour itinérants à Montréal.* Verdun: Centre de recherche de l'hôpital Douglas, August 1989.

Hulchanski, J.D., M. Eberle, K. Olds and D. Stewart. *Solutions to Homelessness: Vancouver Case Studies.* Vancouver, British Columbia: UBC Centre for Human Settlements, 1991.

Kupfer, David J., Michael Levine and John A. Nelson. *Mental Health Information Systems: Design and Implementation.* New York: Marcel Dekker Inc., 1976.

McLaughlin, MaryAnn. *Homelessness in Canada: The Report of the National Inquiry.* Ottawa, Ontario: Canadian Council on Social Development, 1987.

Peressini, T., L. MacDonald and D. Hulchanski. *Estimating Homelessness: Towards a Methodology for Counting the Homeless in Canada. Background Report.* Ottawa: CMHC, Spring 1996.

St. Clair, Paula. "ANCHoR Implementation Manual." Internal document. Chicago: Community Emergency Shelter Organization, May 31, 1996.

Schmitz, Homer H. *Managing Health Care Information Resources.* Rockville, Md.: Aspen Publishers, 1987.

Soler, Mark I., Alice C. Shotton and James R. Bell. *Glass Walls: Confidentiality Provisions and Interagency Collaborations.* San Francisco: Youth Law Center, March 1993.

Toronto. "Status Report on Hostel Services." Internal report. Toronto: Metro Community Services, Municipality of Metropolitan Toronto, November 8, 1996.

Trute, Barry, Bruce Tefft and David Scuse. *Human Service Information Systems: How to design and implement them.* Studies in Health and Human Services, Volume III. New York: The Edwin Meller Press, 1985.

Wills, Magda. "Survey of Homeless Men in the Salvation Army Maxwell Meighen Centre." Toronto, 1996.

1   For more information on SPR Associates, please see last page of this appendix.

2.   The Automated National Client-specific Homeless services Recording (ANCHoR)
      System, developed by the U.S. Departments of Housing and Urban Development,
      Health and Human Services and the Fannie Mae Foundation in collaboration with the
      University of Pennsylvania, is an information system whose goal is to provide tools for
      consumers, providers, advocates and government agencies to more effectively organize
      the delivery of services to homeless persons.

3   It is a premise of the pilot study that in order to gain a broader understanding of
      homelessness, information from individual shelters should, with suitable deletion of
      private information, be combined in an overall community database.

4   Usage of the Internet option would require shelter staff to use passwords. In order to
      increase security, passwords would ideally consist of a combination of five to seven
      letters and numbers. The Internet Web site could be programmed so users must change
      their passwords periodically in order to futher increase security. Other password security
      measures could include forbidding the use of consecrutive letters (word formation) in a
      password. The Web site would further have to be programmed in such a way as to be
      able to let staff change passwords, and to let shelter management give and take away
      passwords (i.e., control who has access to the Internet database).

5   For example, income, substance abuse, violence in the home and mental illness.